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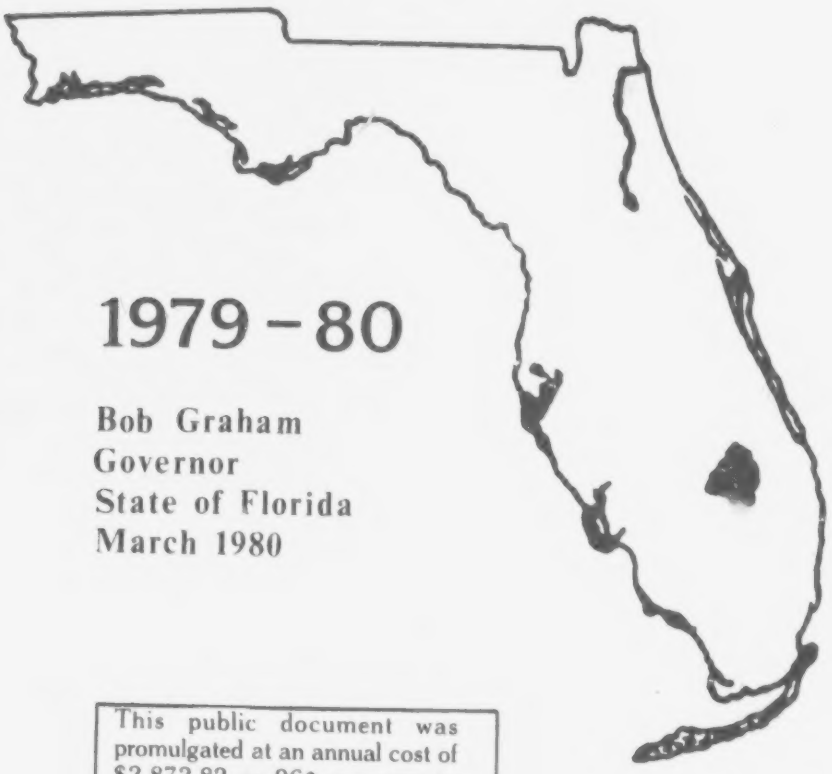
Economic Report of the Governor



1979-80

Bob Graham
Governor
State of Florida
March 1980

This public document was promulgated at an annual cost of $2,872.82 or 96¢ per copy to present to the people and to the legislature of this state a review of and outlook for the Florida economy, in accordance with Chapter 23.015, Florida Statutes.

STATE OF FLORIDA

OFFICE OF GOVERNOR BOB GRAHAM

April 1, 1980

Honorable President and
Members of the Senate

Honorable Speaker and
Members of the House
of Representatives

Honored Members:

In accordance with Section 23.015, Florida Statutes, I am transmitting to you and all of the people of Florida a report on the economic status and outlook for the State. I have been concerned for some time about the limited horizon of State planning and programming for the needs of our citizens. In this regard, I have directed the State Economist and his staff to prepare an evaluation of the long run prospects for the decade of the Eighties. Further, I have asked for objective consideration of the issues which will shape many of the decisions which will confront both the government and private sectors in Florida.

The forecast of economic activity and the analysis of the fundamental issues facing the State and the Nation during the course of this decade presented in this report should provide valuable assistance to members of the Legislature, government officials at all levels, and the business community of the State.

Comments and suggestions from readers will be appreciated and will be considered in the development of future economic reports.

With kind regards,

Sincerely,

Governor

BG/db

STATE OF FLORIDA

OFFICE OF GOVERNOR BOB GRAHAM

March 17, 1980

Honorable Bob Graham
Governor
State Capitol
Tallahassee, Florida 32301

Dear Governor Graham:

The Revenue and Economic Analysis Unit of the Office of Planning and Budgeting is pleased to submit to you this report on the status and outlook for Florida's economy. The format of the report has been extensively revised to accommodate your concerns for the long-term as well as the immediate prospects for the State. This year's report examines the record of economic activity in the State since 1978; it emphasizes the issues of energy and inflation and their impacts on Florida, both in the recent past and in the long term. The ten-year trend forecast takes special cognizance of these issues, and it attempts to develop a sense of proportion in terms of their real implications both for the standard of living of Florida's residents and the decisions that must be made by State Government.

This year's report was developed by the intensive efforts of the staff of the Revenue and Economic Analysis Unit. Further, it benefited from the very helpful comments of your Economic Advisory Committee, particularly in their review of the format and content of the long range forecast. We particularly wish to express our appreciation to these individuals.

Respectfully submitted,

Jim Tait
Director
Office of Planning and Budgeting

JT/deb

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PART I

ECONOMIC ACTIVITY: 1979

As often noted, Florida has an open economy, i.e., decisions made and actions taken by people in the state have a minimal influence on many things vitally important to economic activity within the state. For instance, the decision to purchase automobiles or borrow money by citizens of the state have little effect on prices and interest rates established by markets that are world-wide in scope. Yet these decisions are the essence of the level and direction of economic activity in the state. To appreciate the significance of these external influences, it is useful to highlight a number of channels through which national and international conditions and institutions impact Florida.

National economic markets offer numerous goods and services demanded but not produced within the state. These markets establish pricing standards that permit rational guides to the allocation of resources within the state; their importance is underscored when their orderly processes are disrupted--as when there is a noticeable uncertainty about availability of motor fuel or when major strikes in the transportation sector threaten shipments of perishable farm products. The cost of depending upon such markets is repaid by immense gains in efficiency derived from economies of scale and regional specialization; the standards of living in the state and nation would greatly suffer without regional interdependency coordinated by national markets.

On the other hand, Florida specializes in the production of particular goods and services, substantial portions of which are exported to national (and international) markets. For example, Florida is an exporter of agricultural commodities, certain raw materials, manufactured goods, and tourist services. The external demands for these goods and services provide key linkages for transmitting cyclic instability from the national economy into Florida; they also provide a source of growth, development, and income to Florida's citizens.

External conditions also affect the state's economy through their impact on the rate of population in-migration. Virtually all of Florida's population growth and a large fraction of its economic growth is due to the net in-migration of new residents. This fact shapes the demographic profile of the state and thus determines the composition of goods and services demanded from business and government. In-migration rates are closely linked to national economic and credit conditions. For instance, when credit conditions slow the sale of homes in sending areas, population mobility is diminished and in-migration to Florida slows. Also, during periods of widespread unemployment, labor force migration is reduced by lowered income levels and the riskiness of entering distant and unfamiliar labor markets. Fluctuations in net in-migration are most directly felt by housing construction, and its effects there radiate into all sectors of the economy.

Spending programs administered by the federal government also have influences on

economic conditions in Florida. In 1978, for instance, federal government wages and salaries comprised about 4.1% of the personal income of Florida residents--very close to the national average income fraction. However, the ratios of the military component of federal wages and salaries to personal income was 46% larger in Florida than in the nation, so that recent emphasis on defense expenditures offers special benefits to the state. Also, a majority of income transfer programs are weighted to benefit Florida residents; social security contributions relative to total personal income are about 23% higher in Florida than the national average, and relative to total personal income, the net transfer payments component of personal income is about 31% higher in Florida. On the other hand, the allocations for federal revenue sharing and other distributional programs are weighted heavily to the detriment of Florida, so that Florida is at the bottom of the list as far as per capita funds received.

Finally, numerous national government and quasi-government policies affect Florida as they are embodied and transmitted through the markets for money, capital, goods and services. A most obvious case of this is the impact of the Federal Reserve monetary policy on construction; other examples include the effects of inflation, various regulatory decisions, and price controls.

Because of the important linkages between cyclic and secular trends in Florida and economic activity in the nation as a whole, the report of Florida's economic record for 1979 must be put in the perspective with a detailed review of national experience. This review will focus on events and patterns that have had a most significant impact on the economy of the state.

KEY NATIONAL ECONOMIC ISSUES: 1979

Two key problems dominated the national economy in 1979: insecure energy supplies and rapid increases in the average level of prices. The effects of these problems infected all sectors of the economy, as households, business, government, and financial institutions adjusted to increasing instability and uncertainty. The net impact in 1979 was a pattern of erratic growth in measures of aggregate activity, with the economy emitting many signals characteristic of a business cycle peak.

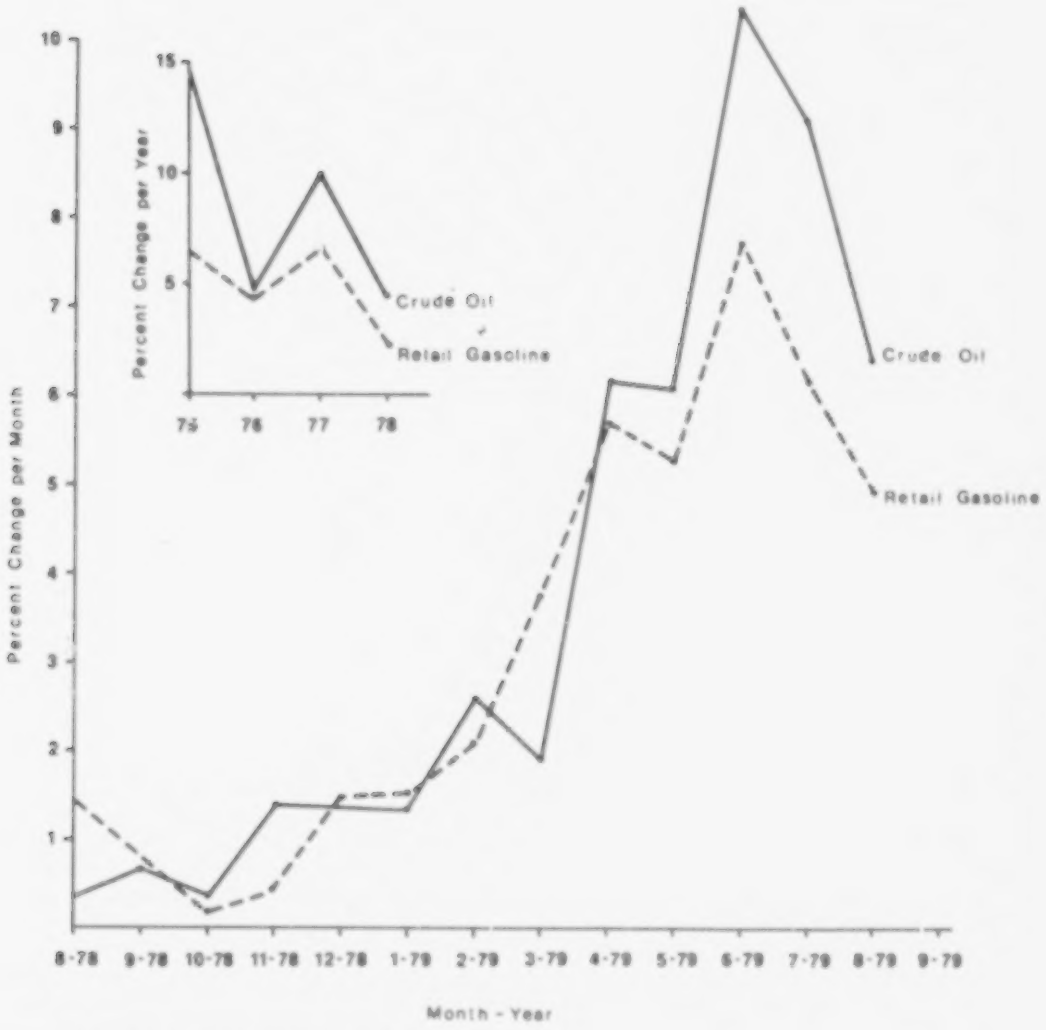
ENERGY

Of the above problems, the easiest to diagnose in terms of immediate cause and obvious impacts is the disruption of orderly world and national markets for crude and refined petroleum. From 1975 to 1978, the world experienced four years of relatively stable conditions in international oil markets--to the point that the price of oil actually fell relative to the price of other goods. For example, between 1975 and 1978, the price of gasoline increased at an average annual rate of 5.3%; during the same period, the price of all consumer goods increased at an average rate of 7.3% per year. As a consequence, many oil exporting countries began to realize deteriorating foreign trade balance, which put extreme pressure on ambitious development plans of various oil exporters and contributed significantly to severe political turmoil in the most over-extended, Iran. During late 1978, the Shah Reza Pahlavi was dethroned, and in the ensuing chaos, crude oil production was severly curtailed. Between July, 1978 and January, 1979 the world lost nearly 10% of its crude oil output as Iranian production fell from 5.4 million to 445,000 barrels per day.

This began a pattern made familiar by the 1973 Arab oil embargo: a shortage followed by rising spot market prices followed by increased contract prices. Spot prices reflected strong components of speculative and hedge buying as they jumped to over $30 per barrel early in the year, and then to as high as $42 per barrel (a dollar-a-gallon) in the third and fourth quarters. Closely following the spot increases, marker and posted prices moved sharply upward, compounded by surcharges and "security" premiums. Finally, phased decontrol of some domestic prices, increasing output of upper tier Alaskan crude, and increasing output from uncontrolled stripper wells further raised the average price of petroleum paid by refiners. Because OPEC price increases were enacted retroactively, they were immediately reflected in the price of gasoline, as noted in Figure 1. The problems caused by rapid price increases were compounded by imbalances induced throughout the production-distribution system by price controls and by frequent shifts in federal policy on the allocation of crude and the gasoline/heating oil production mix.

Figure 1

Rates of Change: (1) Average Price of Crude Oil Paid by Refiners;
(2) Average Retail Price of Gasoline



Source: Chase Econometrics Inc.

The oil crisis of 1979 had many immediate impacts, although the full adjustment to all of the changes will continue for some years. The first effects are obvious--the wholesale price of fuels rose at a 47.4% annual rate through November. This increased the U.S. fuel import bill by 77% to an estimated $78 billion annual rate by the fourth quarter so that total merchandise imports amounted to about 11.7% of GNP. Further, the fraction of disposable personal income spent on energy was increased to almost 9% by the end of the year; thus, the average household spent $1760 on gasoline, heating oil, electric and gas utilities in 1979 (compared with $1420 in 1978). A second impact was generated by the confluence of federal price controls, which created excess demand for gasoline, and faulty allocation formulae which did not account for differential growth rates among the states. Resulting spot shortages caused extensive queue rationing in many parts of the nation, particularly the Northeastern states and California, and undoubtedly disrupted normal production activity and consumption patterns in the affected areas. Fuel

shortages also gave impetus to a Teamsters' strike and lockout in the second quarter, which seriously slowed commerce in many areas.

The longer term effects of the rapid run-up in relative oil prices are less obvious and traumatic, but no less real. Certainly, the most vexing issue is the impact of much higher energy prices on capital formation and productivity. Higher energy prices have several effects in this regard. First, the higher price of energy diverts research and development efforts from improvement of product quality and manhour productivity to the improvement of energy productivity. Second, higher energy prices render energy inefficient segments of the existing capital stock economically obsolete--thus lowering effective capital-to-labor ratios, and consequently, the productivity of labor. Third, for the given state of technology, the desired capital-to-labor ratios will tend to decline as energy prices increase; this leads to diminished capacity utilization and capital formation. Fourth, investment decisions in an economy where 11 to 12% of all activity is related to foreign trade (up from 6.2% in 1971) are implicitly more vulnerable than in the past to actions taken by people with little stake in the success of American business; this makes returns from such decisions more risky and undoubtedly induces more conservative investment strategies on average. The net result of these effects has been to reinforce the trend established since the 1973 energy price increases--a dramatic decline in labor productivity from the 2.4% average rate of growth in real GNP per worker from 1948-73 to essentially zero growth since 1973. Despite the trauma of the energy crisis, the American economy has demonstrated a remarkable ability to adapt. Striking evidence of this adaptability has been the dramatic growth of energy productivity--since 1974 the ratio of real GNP originating in industry to BTU's consumed by industry increased at a rate of nearly 4% per year.

INFLATION

The rapid rise in energy prices generated by political disruption of the world oil markets has greatly complicated the solution to the second key problem which surfaced in 1979: acceleration in the rate of increase in the average price level. The overall extent of price increases in all segments of the economy of the United states is best measured by the GNP deflator. In the last quarter of 1979, the GNP deflator stood at 170.8, compared to 156.7 for the fourth quarter of 1978, an increase of 9% during the year, the largest fourth-quarter-to-fourth-quarter change in the GNP deflator since the 11.1% increase during 1974 and the second largest since 1947.

Components of the GNP deflator exhibited an uneven pattern of price increases. For instance, while the Personal Consumption Deflator increased by 10.3% over 1979, durable goods and services components increased by 5.7% and 9.0%, respectively. This compares to the 13.3% increase in nondurables, which contain direct petroleum related purchases by consumers. Similarly, while export prices increased by 12.8%, import prices, which are heavily weighted by oil, increased by 19.4% during 1979. For technical reasons, however, the GNP deflator and its components tend to slightly underestimate the average price level. Another measure, the Consumer Price Index (CPI), which tends to overestimate the impact of price level changes on consumers, increased by 13.3% during 1979; examination of detailed components reveal much the same picture as given by the GNP deflator. First, the CPI component for food purchased increased by 10.0%, a slower rate of increase than experienced during 1978. Specific energy related items showed very rapid rates of increase: gasoline increased by 52.2%, fuel oil by 61.8%, coal and other fuels by 26.9%, natural gas by 20.1%, and electricity by 11.2%. In other areas, the price of housing continued rapid growth at a 15.8% annual rate, new car prices increased by 7.4%, and medical care prices increased by 10.1%.

Two points are striking about the price record for 1979. First, it is abundantly clear that the greatest economic stress originated in the disequilibrium in world energy markets. A second feature, however, is that even though the relative price of energy increased very rapidly, the prices of all major classes of goods and services increased as well. Furthermore, they were increasing at rates that would be considered unacceptable by pre-1973 U.S. standards (recall that President Nixon introduced a wage-price freeze after two quarters of price increases that average about 3.1% per year rate of change--no major component of the GNP deflator, CPI, or Wholesale Price Index grew that slowly in 1979). Since the prices of all goods were increasing, it is evident that the U.S. economy

was feeling the effects of substantial monetary inflation, in addition to the rapid rise in the relative prices of crude oil and its derivative products. The fundamental sources of the inflation originated in the monetary accommodation of the fiscal stimulus after the recession of 1974-75.

Following the massive contraction in business activity that occurred in 1974 and 1975, the annualized rate of growth of the GNP deflator fell from 12.6% in the fourth quarter of 1974 to 3.6% in the first quarter of 1976. As the expansion proceeded, however, it was fueled by an accelerating growth in the money stock (M1) and accelerating prices. For example, from the first quarter of 1975 to the third quarter of 1976, the money stock grew at an annual rate of 5.3%, enough to permit rapid growth (+7.5% real growth in GNP) to levels of real activity equivalent to the business cycle peak of the fourth quarter of 1973. From the third quarter of 1976 to the third quarter of 1978, then, the money stock grew at an average annual rate of 8% and the real economy grew at a 3.6% annual rate. This set in motion a self-reinforcing process that accelerated domestic price growth, forced major adaptations in the national financial structure, and undermined the international monetary system. The process apparently emerged from a fundamental change in the U.S. economy, i.e., following the experience of 1971-75, Americans began to expect inflation and incorporate those expectations into their decisions. When the Treasury and Federal Reserve System (FRS) tried to cope with a two-year accumulated deficit of over $124 billion, price changes began to accelerate moderately in the second half of 1976. Consumers and business recognized the inflation as a tax on money balances and moderated the rate of growth in their demand for money.* This increased the velocity of money (indicating a decline in demand of money holdings), stabilized interest rates and added pressure to prices, i.e., increased the "effectiveness" of the existing money stock. Given stable nominal interest rates and increasing prices, the real interest rate (the rate of interest less the expected rate of increase in the the average level of prices) began a dramatic fall so that from the third quarter of 1976 to the third quarter of 1979, the average real interest rate on short money was negative. Compounding this were the phenomena of rising nominal incomes, deductible interest rates, and progressive tax rates, all serving to lower the cost of borrowing money. The net effect of negative real borrowing costs was a huge increase in the demand for credit and upward pressure on nominal interest rates, controlled only by continuous injection of new reserves into the banking system; in fact, from the final quarter of 1976 to the final quarter of 1978, the monetary base grew at an accelerating rate that average 9.2% and the velocity of money grew by over 20%. This rapid monetary inflation overwhelmed advances in real output to accelerate consumer price growth rates from 6.7% in 1977 to 9.0% in 1978 to 13.3% in 1979.

Accelerating price growth set in motion a second train of events which finally led to an external check on the inability of the United States to control its money supply. After 1976, the inflation differential between the United States and every major trading partner began to seriously deteriorate. This was intolerable to the world financial community, which held a large fraction of its reserves in the form of rapidly depreciating dollars. Further, OPEC became perceptibly nervous about accepting dollars for oil. Huge accumulated balances of dollars entered foreign exchange markets, and the trade-weighted value of the dollar began to plummet. Against all other currencies, the dollar fell by 5.8% in 1977 and another 9.4% in 1978. Particularly startling was the accelerating rate of the decline, as during the third quarter of 1978, the dollar fell at a 23.8% annual rate. The deteriorating condition of the dollar in foreign exchange markets induced the Federal Reserve to institute a program of monetary restraint. This was followed by a rescue program implemented on November 1, 1978, which increased sales of gold and committed 30 billion dollars in foreign currency reserves assembled by the Treasury to support the dollar on international money markets. The effect on the foreign exchange

*The "demand for money" is the relationship between the amount of money desired by the public and the volume of economic transactions that must be supported. As measured output (GNP) increases, all else being equal, the amount of money desired should increase proportionally. The demand for money will fall during periods of increasing interest or accelerating rates of change in the price level so that less money is held to maintain a given volume of trade.

value of the dollar was immediate and positive as it began an upward movement that lasted for three quarters.

The effect on the money stock was also immediate. The annualized rate of growth in the monetary base fell by over 55% from 13.7% to 6.1% between October and November, and averaged only 5.4% from November through March of 1979. This was compounded by a rapid decline (9.4% annualized change) in the monetary multiplier* to stop monetary growth in the last quarter of 1978 and generate negative growth in the money stock in the first quarter of 1979. Unfortunately, it is quite clear that households and business were still responding to anticipated inflation and the heavy inflation "tax" on cash balances by reducing their demand for money, because even with a falling money stock and continued high rates of net borrowing, short-term interest rates actually declined while long-term rates increased. This meant that there would be no reduction in prices, since nominal demand for all goods and services increased even as the rate of increase in real output slowed. Indeed, in the first quarter of 1979, the CPI increased at a 12.8% rate. More important to economic policy-makers, however, was the fact that much of the available economic data and many prominent economic forecasters were indicating the imminent onset of an economic slowdown.

In the face of the slowdown, the FRS relaxed monetary restraint to provide stimulus to the economy. Beginning in April of 1979, the rate of growth in the monetary base was pushed upward by a factor of five from the previous month. Pressure was continued for the next six months so that on the average, the monetary base grew at a rate of over 10% per year from April to September. During the same time, while real economic output grew by less than 1%, the money supply of the United States grew at a 12.3% annual rate. Inflationary expectations and negative real interest rates increased the demand for credit and diminished the demand for money; the saving rate fell sharply and consumers and business alike greatly expanded expenditures on all goods and services. Since output was not substantially higher, most of the increase in expenditures bid up prices of what was available, and from April through December the CPI increased at an average annual rate of 13.5%.

Most ominous, however, was a developing national and international flight from the dollar. During the second quarter of 1979, for the second time in less than a year, the dollar began to fall in international markets, and by the third quarter both foreign and domestic household and business sectors began to unload dollars for debt, hard currency, and commodities. The commodities market prices showed a strong upward trend with wide variations; during the third quarter, for instance, producer prices for crude materials were 17.3% above the third quarter of 1979 with monthly annualized rates of increase varying from 2% to 28%. Further, the price of gold rose dramatically as rumors were revived that various OPEC nations would stop accepting dollar payments for oil. Finally, in an atttempt to control their inflation rates, the Europeans ceased any major support operations for the dollar. The issue was especially serious between the U.S. and West Germany, as rising real interest rates in West Germany were beginning to draw money out of international dollar denominated deposits.

While the accelerating domestic inflation and falling dollar were critical developments in the third quarter of 1979, probably the most important was the fact that the real activity in the economy recovered all lost ground resulting from a decline in the second quarter. Most crucially, the unemployment rate remained below 6%. This gave the Board of Governors of the Federal Reserve the breathing space to re-orient monetary policy. On October 6, the Board endorsed the concept of controlling bank reserves in preference to the Federal Funds rate, sharply raised the discount rate, and instituted new reserve requirements on Eurodollar accounts. The key item in the change--to directly manage non-borrowed bank reserves--provides the potential for unambiguously controlling monetary aggregates and the resulting effects on the general price level.

Initial implementation of the policy, however, sent temporary shock waves through the national financial system. There was an "orderly bloodbath" in the nation's bond markets, as interest rates rose dramatically; even long-term Treasury obligations fell in

*The monetary multiplier is the ratio at which the banking system converts injections of new reserves into money. The decline during this period seems to be due to increased fractional reserve requirements and increased cash leakage.

value so that their interest yields increased by a full percentage point in a single day. The Federal Funds rate oscillated violently between 1% and 20%, the prime bank lending rate jumped to 15.75% and FHA mortgage lending rates increased well above usury ceilings in many states. Toward later November and through December of 1979, the federal funds rate settled into the 13.5 - 14% range, Treasury Bills fluctuated around the 12% discount rate and the prime bank lending rate stabilized at 15.25% at most major banks.

Unfortunately, there was little indication during the last quarter of 1979 that the more orderly conduct of monetary policy had any substantial impact on the price level. Nor, for that matter, was there any serious anticipation that immediate effects would be felt during the first six months of slower growth rates in monetary aggregates. Reversing the momentum of a decade-long inflation binge was expected to require the long-term application of sound monetary management, and the pressures to continue inflation will not cease with the inception of the New Monetary Policy (NMP). The potential longevity of the FRS's initiative, however, was greatly enhanced by the fortuitous coincidence of circumstances that, during the period of initial entrenchment of the NMP, growth in most segments of the U.S. economy was unexpectedly strong and election year political attention was diverted to international events.

OVERALL NATIONAL ECONOMIC TRENDS: 1979

Given the severe shock of the doubling of crude oil prices and the massive dislocations implicit in accelerating inflation, the U.S. economy showed surprising strength in 1979 by most conventional measures. As seen in Table 1, however, little in the record indicated clearly positive trends. A cursory examination of the data reveals that during 1979, real Gross National Product grew by 0.8% during the year - on the strength of a 2% increase in employment. This implies a sharp downward trend in productivity per worker. In fact, on an annual average basis, productivity (output per manhour) declined by 0.9% in 1979 versus 1978; this is only the second time in 33 years that a productivity loss has been sustained for an entire year. Overall production indicators show an 0.9% increase in industrial output, but by year-end, Table 2 shows that output was down in consumer durables (-8.7%), intermediate products (-0.3%), and durable goods materials (-2.6%). Output increased over the year in consumer nondurables (1.6%), business equipment (4.2%) and nondurable good materials (4.0%). By contrast, output was above year earlier totals in all categories as late as May, 1979.

A somewhat more disturbing trend was evident in the area of income. Nominal personal income showed a strong 10.9% growth through 1979, ending the year at a $2000.2 billion annual rate; in constant dollar terms, however, the increase was only 0.6%, which is slightly less than the year's growth in population and significantly less than the growth in employment. The trend is even more pronounced when the effects of progressive income tax rates are included. In particular, disposable personal income in 1972 dollars increased by a meager 0.2%; it changed by -0.4% on a per capita basis and by -1.7% on a per employee basis. Even more striking is the impact of inflation and taxes on purchasing power of the wages and salaries earnings of an average worker; in 1979, this measure declined by 5.2% following a 3.5% drop in 1978.

Because of the significant decline in real incomes, it seems somewhat anomalous that real consumption expenditures remained so strong in 1979, although from an accounting viewpoint, the source of growth seems quite clear. In the last quarter of 1978, real consumption spending was increasing at a 6.7% annualized rate, and at this point consumers were saving 4.7% of their disposable income. During the first quarter of 1979, real GNP grew at a 1.1% rate while consumption increased at a 0.7% rate and the saving rate increased to 5.0%. In the second quarter, real GNP adjusted downward at a 2.3% rate as saving increased to 5.4% of disposable income and consumption fell by 2.9%. Then, in the third quarter of 1979, a reversal in consumer behavior began as a 4.9% increase in total consumption helped push real GNP up by 3.1%--the consumption increase was financed out of a decline in the saving rate to 4.3%. The same pattern carried forth into the last quarter of the year as the saving rate declined to 3.3% (the lowest quarterly rate since a 2.1% rate was recorded in the third quarter of 1950); in the last quarter, real GNP increased by 2.1% while real consumption increased at a rate of 4.1%. Overall in

1979, the saving rate averaged only 4.5%, the lowest rate recorded in thirty years.

TABLE 1
SELECTED MEASURES OF ECONOMIC PERFORMANCE

Indicators	Q4 Level 1979	Q4 to Q4 Percent Change 76-77	77-78	78-79
Real Gross National Product*	1438.3	5.7	4.8	0.8
Employment, millions	97.4	4.4	3.9	2.0
Unemployment Rate	5.8%	-14.3	-12.1	1.7
Index of Industrial Production	152.1	5.9	7.4	0.9
Real Disposable Income*	993.4	5.4	4.2	0.2
Real Consumption Expenditures*	935.2	5.3	4.5	1.6
Consumer Debt/Disposable Income	23.2%	4.9	4.7	3.6
New Car Sales**	9.9	6.8	1.8	-11.6
Housing Starts**	1.6	23.7	-0.5	-23.1
Saving Rate	3.3%	-1.9	-7.8	-29.8
Real Fixed Investment, Private*	376.9	19.9	17.2	7.7
Real Spendable Earnings Per Worker***	87.2	3.7	-3.5	-5.2

*$72, Billions, Annual Rates
**Millions of Units, Annual Rates
***$67, Weekly Earnings Per Worker with Three Dependents, Adjusted for Taxes and Consumer Price Inflation

Source: Chase Econometrics Associates, Inc.

While the fluctuation in the saving rate accounts for the abnormal growth in consumption behavior, it does not explain it, especially since the saving rate has historically declined mainly in periods of strong real economic growth. Several reasons for the decline have been advanced, including: (1) a rational consumer response to accelerating inflation; (2) increased demographic representation of low saving in the 19-34 age categories; (3) increases in household wealth due to rising home values; (4) relative increases in the size of the subterranean economy; (5) significant overwithholding of income taxes; (6) technical problems and measurement errors in the consumption accounting process.

Of the six explanations, the first three would argue for a declining secular rate; however, they are not consistent with the observed pattern of behavior for 1979 where the saving rate increased during the first half of the year and dramatically declined in the last half of the year. The explanations for the pattern are certainly within the scope of the last three hypotheses. The overwithholding of income taxes has amounted to over $10 billion and could be counted as saving by consumers. If it was all accounted for in the last quarter, it could add $40 billion to the annual saving experienced in the fourth quarter, bringing it up to $84 billion (compared to $86 billion annual rate in the second quarter). The potential magnitude for measurement error easily swamps all preliminary considerations, however, and may be resolved as revisions to fourth quarter data are received. The potential for the fourth hypothesis is almost unknowable. Current estimates of the subterranean economy indicate that it amounts to around 10% of GNP--for it to affect the saving rate in the pattern indicated there would have to be significant fluctuation in net leakage from off-the-books earnings to legally recorded expenditures. There are no known reasons why this should be so, and by definition, current national income accounting procedures could not isolate such shifts in behavior.

Another hypothesis worthy of consideration which might explain the behavior of the

saving rate is the concept that consumers treat Social Security contributions as a saving. This explanation is certainly suggested by economic theory. If this is true, there were two main events which ocurred in 1979 to affect the measured saving rate--the tax rate and the tax base were both increased. The increase in the rate would tend to be substituted for other forms of saving, shifting down the saving rate as presently measured. The increase in the base would cause a further downward shift in the later part of the year as workers had to pay at the increased rate for longer during the year. Given the magnitude of Social Security contributions, consumers need not consider the total contributions as saving--in fact, it can be shown that they need only perceive that 25% of the contributions to be saving to restore the saving rate to its long-term average. The implications of this explanation are more far-reaching than the standard explanation. Since the Social Security Trust Fund is not invested, it suggests a substantial reduction in loanable funds in the capital markets, higher interest rates, and lower levels of investment at a time when there is an extensive requirement for upgrading the nation's capital stock.

One of the positive aspects of the economy of 1979 was its ability to absorb new labor force entrants even as output stagnated. While the total U.S. population grew by 0.8%, the prime working age (18-64) population grew by 1.75%. Fortunately, labor force participation rates did not show any substantial growth so that the total labor force grew by only 2%, or 2 million workers. These workers were readily absorbed into the ranks of the employed, so that the number unemployed by year-end was only 27,000 higher than at the end of 1978 and the unemployment rate in December 1979 was exactly the same as the unemployment rate in December of 1978. As previously noted, the growth in employment did not cause similar growth in output or real disposable income. What apparently happened in 1979 was that the supply of labor was increased by new entrants and an inflation-induced increase in the saturation of two-earner households, and labor demand was increased by the substitution of cheap low productivity labor for expensive energy-inefficient capital. This produced increased employment at lower real wages.

Of all the sectors in 1979, the two most severely impacted by the energy and inflation adjustment were automobile production and housing construction. During the first quarter of the year, new car sales were proceeding at an 11.6 million units annual rate, some 2.7% above the 1978 total. During the second quarter, sales and shipments of new cars were disrupted by the uncertainty over energy prices, gasoline lines, and the Teamster's strike, so that sales deteriorated to a 10.3 million unit rate (-8%). In the early part of the third quarter, sales were abysmal; inventories rose very rapidly at all levels of the production and distribution system. As the 1980 model year drew near, manufacturers offered massive incentives to dealers and rebates to consumers to liquidate inventories and generate cash flow. Fleet buyers and individuals, under considerable pressure to upgrade auto stock fuel efficiency, took advantage of the programs to boost purchases by almost 5% (at annual rates). While the aggressive inventory management programs certainly worked to cut inventories, they also assisted in producing the quarterly operating loss of nearly $900 million by General Motors, Ford and Chrysler. During the last quarter of the year, the industry was selling autos at a rate of 9.9 million units per year, the lowest annual rate since 1975.

Housing construction was affected somewhat differently by the course of events in 1979. Following a very strong 1978, when over two million new homes were constructed, unusually severe winter weather caused home construction to fall by 22% in the first quarter of 1979. Favorable demographic trends and housing's singular performance as an inflation hedge for middle income groups allowed a 13% recovery in the second quarter to a 1.83 million unit rate, even as overall economic performance posted a decline of 2.3%. The trend continued into the third quarter as starts maintained the 1.83 million unit rate. New home prices soared as the industry satisfied increasing demand for custom built homes, and this pulled the median sale price of existing homes up from $51,600 at the begining of the year to $58,000 by July. The surge in the CPI and the increase in mortgage interest rates reversed the trend. Rising mortgage rates increased payments to depress sales of existing homes from a 4.1 million unit annual rate to a 3.7 million unit rate. Further, this was accompanied by a sharp decline in existing home prices to a median level of about $55,700 by the middle of the fourth quarter. The home building industry, which is extremely responsive to market conditions, slowed starts to a rate of 1.6 million units in the fourth quarter, a decline of 23% from 1978 fourth quarter sales.

Finally, new mortgage commitments, closings and permit activity all validated the strong drop in the status and trends in housing construction to 1976 levels of activity.

ECONOMIC ACTIVITY IN FLORIDA: 1979

From the beginning of 1979, two important issues conditioned expectations about the economic performance of Florida as the nation was buffeted by the problems of inflation, insecure energy supplies, declining productivity and erratic patterns of growth. First, there were serious questions about the viability of the tourist industry in the face of rising gasoline prices, actual delivery deficits, and threats of non-price allocation schemes. Second, the resilience of Florida's crucial construction sector was tested by rapid changes in materials costs and interest rates and by uncertainty about the pattern and growth rate in new household formation. Table 3 gives selected indicators to summarize Florida's economic performance for 1979.

POPULATION

Florida's population growth during the last three decades has been dramatic, especially in relation to national trends. From 1950 to 1979, the United States population as a whole grew by 45%, while Florida's population more than tripled--growing from 2,771,305 to 9,245,345. During this period, Florida was elevated from the twentieth most populous state to the eighth most populous in 1979.

Florida's population growth rates have also shown much wider fluctuation than national rates. For the United States as a whole, annual growth rates have declined fairly smoothly from highs of about 1.8% in the 1950s to the current level of about 0.8%. In contrast, Florida's annual growth rate increased from 5% in the early fifties to 8% by the end of the decade only to fall to less than 3% in the late sixties. During the seventies, annual growth rates increased to over 5% in the early years, fell to less than 2% in the mid-seventies, and rebounded to about 3% last year.

The volatile nature of Florida's population growth results from the dominance of the net migration component over the natural increase component of population growth. Natural increase, the difference between births and deaths, has been declining steadily since 1950. As can be seen in Table 4, the reason for this decline is a fairly constant number of births, around 100,000 per year, while the number of deaths has been rising steadily to around 80,000 per year in the late seventies.

Consequently, the proportion of population growth resulting from net migration, the difference between the number of persons moving in and those moving out, has increased from 74.5% between 1950 and 1960 to 91.1% during the current decade. This pattern differs significantly from most other states, where net migration has a relatively small or even negative effect on population growth.

Thus the increasing importance of the net migration component of population growth is a function of the increasing number of deaths per year which is in reinforced by the age distribution of the migrant population. The influx of retirees to Florida is largely responsible for the increase in the percent of Florida's population sixty-five and over from 11.2% in 1960 to 17.7% in 1979, compared with national figures of 9.0% and 11.0%, respectively. Given that Florida's population is quite old and becoming older, it is very likely that Florida's natural increase will become negative within the next few years. Thus, the total responsibility for Florida's population growth will have to be borne by the net migration component of population growth.

The net migration of retirees has not only increased the average age of Florida residents but has also reduced the average household size. Since 1960, the average household has declined from 3.11 persons to the current estimate of 2.56 persons. Consequently, the number of households in the state has been growing at a faster rate than the population as a whole. Between 1970 and 1979, the number of households increased by an annual average rate of 5.24% compared with a population growth rate of 3.49%.

While Florida's population as a whole increased by 36.1% from 1970 to 1979, population growth rates by county varied from a negative 4.3% for Gadsden County to

TABLE 3
THE FLORIDA ECONOMY: SELECTED INDICATORS

	1979 Q4	Q4 to Q4 Percent Change		
		76-77	77-78	78-79
Population (thousands)	9,361.9	2.1	2.8	3.3
Real Personal Income* ($72)	46,865.2	5.7	6.0	4.9
Total Employment (thousands)	3,334.9	7.3	6.1	4.4
Construction	237.7	13.4	13.1	11.2
Manufacturing/Mining	468.0	9.8	10.3	5.2
Trade	840.5	6.7	3.8	2.3
Services	729.0	6.2	6.0	5.3
Regulated Industries	212.0	2.2	5.7	7.2
Finance, Insurance, Real Estate	244.7	7.4	8.9	8.0
Government	612.6	4.6	4.8	1.2
Unemployment Rate	5.7	-18.7	-12.2	-12.3
Total Tourists (millions)	34.5	2.5	11.6	4.4
New Car Registrations (thousands per year)	474.8	14.5	5.3	-10.5
Housing Starts (thousands per year)	184.0	73.2	33.3	2.7
Total Construction Expenditures*	10,865.2	46.9	35.2	17.8
Taxable Sales*	57,596.8	24.2	13.5	18.0
Motor Fuel Consumption**	1,277.8	3.0	5.5	-5.1

*Millions of dollars, annual rate.
**Millions of gallons per quarter.
All numbers are seasonally adjusted.

Source: Executive Office of the Governor, Revenue and Economic Analysis.

TABLE 4
COMPONENTS OF FLORIDA POPULATION GROWTH: 1950-79
(thousands)

Years	Births	Deaths	Natural Increase	Net Migration	Total Change	Percent of Net Migration
1950-60	910.5	353.7	556.7	1627.3	2184.0	74.5
1960-70	1095.0	602.0	493.0	1356.0	1849.0	73.3
1970-79	995.8	778.2	217.6	2236.2	2453.9	91.1

Sources: Florida Estimates of Population, 1979, 1980
Economic Report of the Governor, 1977.

TABLE 5
COUNTY POPULATION CHARACTERISTICS
APRIL 1, 1979

County	April 1, 1979 Estimate	Percent of State Population	Percent Change 1970 to 1979	Percent Due to Net Migration	Population Per Square Mile	Percent of Population Over 65[1]
Alachua	138,378	1.5	32.1	69.1	151.1	6.9
Baker	13,415	0.2	45.2	70.8	22.9	9.9
Bay	97,479	1.1	29.5	64.6	130.5	9.6
Bradford	17,360	0.2	18.7	63.3	59.0	10.2
Brevard	275,779	3.0	19.9	75.7	272.8	9.5
Broward	966,083	10.5	55.8	99.2	792.5	21.1
Calhoun	8,952	0.1	17.4	69.4	16.0	14.2
Charlotte	55,392	0.6	101.0	111.2	78.8	41.1
Citrus	42,307	0.5	120.9	106.1	75.7	31.5
Clay	56,772	0.6	77.1	85.1	95.7	8.2
Collier	81,912	0.9	115.3	94.5	40.8	17.5
Columbia	31,126	0.3	23.3	59.9	39.7	9.7
Dade	1,519,247	16.4	19.8	87.1	744.0	15.6
DeSoto	19,104	0.2	46.3	88.3	29.5	15.3
Dixie	7,656	0.1	39.7	80.5	11.1	11.3
Duval	566,420	6.1	7.1	(17.9)	739.5	9.1
Escambia	233,196	2.5	11.6	25.9	350.7	8.0
Flagler	9,046	0.1	103.1	96.5	18.6	20.5
Franklin	8,403	0.1	18.9	82.3	15.7	17.4
Gadsden	37,492	0.4	(4.3)	358.9	73.2	14.2
Gilchrist	6,027	0.1	69.7	93.5	17.4	14.6
Glades	5,882	0.1	60.3	92.8	7.8	11.7
Gulf	11,149	0.1	10.4	32.3	19.7	10.9
Hamilton	8,849	0.1	13.6	41.6	17.2	13.4
Hardee	18,338	0.2	23.2	55.6	29.2	11.0
Hendry	17,576	0.2	48.2	71.9	14.8	8.4
Hernando	38,182	0.4	124.6	100.9	78.9	25.4
Highlands	48,268	0.5	63.6	100.8	48.4	25.2
Hillsborough	634,469	6.9	29.4	78.0	611.2	11.4
Holmes	14,061	0.2	31.2	94.0	29.2	17.4
Indian River	56,761	0.6	57.7	96.8	112.2	20.4
Jackson	38,592	0.4	12.1	57.6	41.3	13.0
Jefferson	10,217	0.1	16.4	43.0	16.9	13.6
Lafayette	4,439	0.1	53.5	90.1	8.1	17.6
Lake	96,115	1.0	38.7	102.5	99.9	27.8
Lee	191,903	2.1	82.4	98.3	244.5	22.7
Leon	138,583	1.5	34.5	69.2	206.8	6.2
Levy	17,630	0.2	38.2	89.1	16.3	14.8
Liberty	4,311	0.1	27.6	78.8	5.1	12.6
Madison	14,615	0.2	8.4	24.6	20.8	14.3
Manatee	141,188	1.5	45.4	109.5	191.1	31.9
Marion	106,852	1.2	54.8	90.1	66.3	15.7
Martin	57,380	0.6	104.7	100.7	103.2	25.4
Monroe	58,509	0.6	7.5	13.8	54.7	12.7
Nassau	31,798	0.3	54.2	79.9	48.9	7.5
Okaloosa	111,866	1.2	26.9	45.8	118.5	4.4
Okeechobee	19,881	0.2	77.0	83.2	25.6	9.8
Orange	441,337	4.8	28.2	73.1	485.0	10.5
Osceola	42,344	0.5	67.6	98.0	32.2	21.3
Palm Beach	564,447	6.1	61.7	99.2	279.0	20.7
Pasco	161,873	1.8	113.1	107.0	218.2	32.7
Pinellas	725,457	7.9	38.9	119.9	2,737.6	32.0
Polk	295,541	3.2	29.3	80.1	159.1	15.2
Putnam	45,693	0.5	25.5	81.4	58.7	14.6
St. Johns	45,961	0.5	48.1	94.4	76.0	16.6
St. Lucie	87,439	0.9	62.2	90.4	141.2	18.8
Santa Rosa	50,517	0.6	33.9	63.3	49.0	7.4
Sarasota	192,324	2.1	59.7	112.4	327.6	35.3
Seminole	156,794	1.9	87.4	88.2	514.1	9.9
Sumter	22,041	0.2	48.5	90.7	39.7	15.6
Suwannee	20,879	0.2	34.2	81.7	30.4	15.9
Taylor	15,196	0.2	11.4	40.6	14.5	12.5
Union	10,740	0.1	32.4	84.6	44.6	7.1
Volusia	249,422	2.6	41.9	108.5	226.4	24.3
Wakulla	9,615	0.1	52.4	85.5	16.0	10.3
Walton	19,218	0.2	19.5	95.8	18.3	17.8
Washington	15,459	0.2	35.0	87.9	26.4	17.8
FLORIDA	9,245,345	100.0	36.1	[illegible]	170.9	17.5

Source: Florida Population Estimates, February, 1980.

[1] As of April 1, 1978.

124.6% for Hernando. Figure 2 shows that the high growth counties are concentrated in the central and southern portions of the state. In fact, seven of these counties--Hernando, Citrus, Collier, Pasco, Martin, Flagler, and Charlotte--doubled their population size over the decade. Although experiencing high relative growth rates, these seven counties accounted for less than 10% of the increase in the state's total population. In constrast, the six largest counties--Dade, Broward, Pinellas, Hillsborough, Duval, and Palm Beach, received almost 60% of the total population increase.

The consequence of these differential growth rates at the county level is illustrated by Figure 4, which shows the spatial variation in the distribution of the state's elderly population. Ten counties, generally in the central and southern portions of the state, have at least 25% elderly residents. A comparison of Figures 2 and 4 indicates the obvious relationship between the rapid growth counties and those with relatively large elderly populations. As in the case with the total population, however, over 50% of Florida's elderly population resides in the six largest counties (Figure 3). Despite considerable population growth, population density remains relatively low as three-fourths of the counties have densities below 200 persons per square mile.

TOURISM IN 1979

On an annual average basis, between 1977 and 1978, non-resident tourist visits to Florida increased by about 11.5%. However, much of this gain was attained by the early 1978 performance since during the last half of 1978 seasonally adjusted annual growth fell to only 4.4%. In the first quarter of 1979, a weakening in the national economy and fears of disruptions of the gasoline markets caused total tourism to show an actual decline based on a single quarter reduction of over 5% (-18.9% annualized rate) in auto tourists. The blow was somewhat cushioned by deregulation of the airline industry, however, as cut-rate air fares induced increases in tourists visits by air. This component of tourism was further boosted by the diminished value of the dollar which made Florida vacations a bargain for international tourists. In total, air tourist arrivals increased at an average annual rate of 14% in the first quarter to provide a 8.9% rate of decline in total tourism. The trend surprisingly improved in the second quarter of the year even as the economy showed a definite slowdown and the fears of gasoline shortages were manifested late in the quarter; although auto tourism barely gained at all in the second quarter, domestic vacationers shifted to air transportation. Total tourism for the quarter grew at a 12.9% annual rate--with a 3.6% annual rate of increase for auto tourists and a 31.5% rate of increase by air tourists.

The shock of gasoline shortages fell most heavily during the third quarter; the uncertainty generated caused auto tourism to plummet at a -19.4% annual rate. The continued strength in air tourism (+22.1% annual rate) again softened the effects as total tourism fell at a 5.7% annual rate. During the final quarter of the year, with gasoline supplies assured, Florida experienced an amazing resurgence in auto tourism--in seasonally adjusted annual terms, auto tourist arrivals increased at a 33.5% rate. Interestingly, a weakening in the international economic picture, the stabilized value of the dollar, large increases in air fares, and limited air carrier capacity slowed growth in air tourist arrivals to a 6% annual rate. It should further be noted that the fourth quarter surge in auto tourism is good evidence that auto tourists are far more sensitive to uncertainty about gasoline availability than to gasoline price, since during the fourth quarter the increased price had its effect over the entire quarter. Finally, during 1979, the energy situation continued to induce substantial shifts in the composition of tourism in Florida as indicated by Table 6.

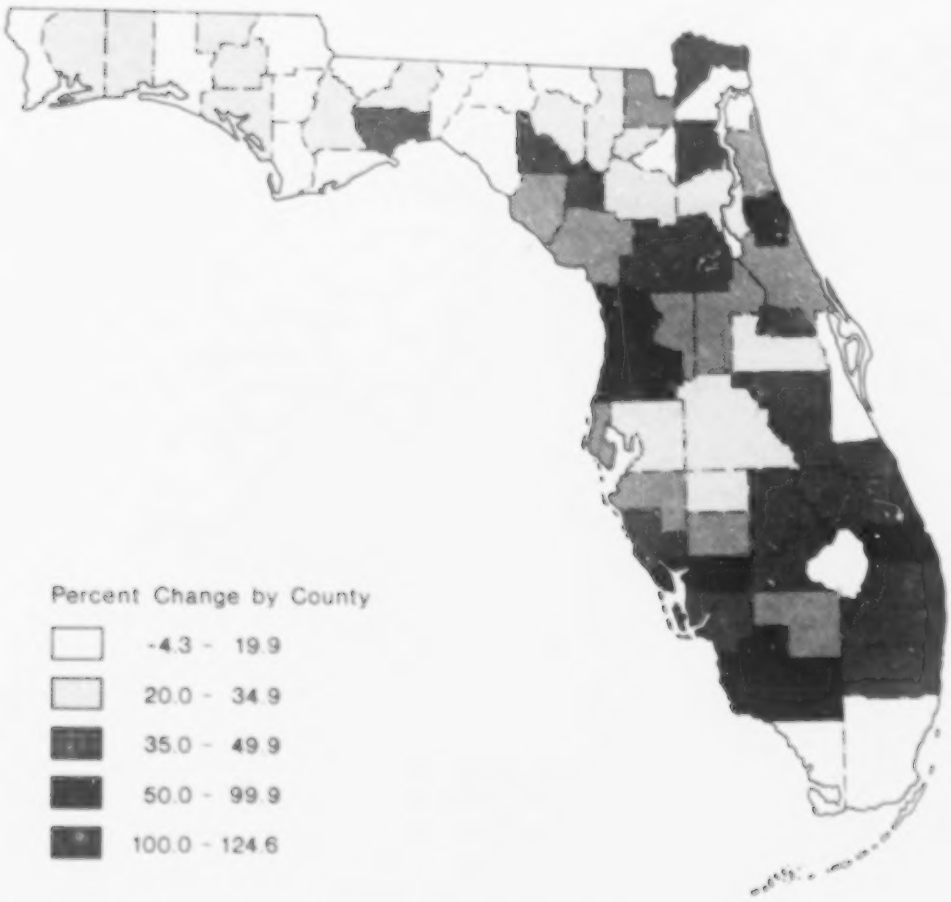
CONSTRUCTION ACTIVITY

The health of the construction sector of Florida's economy depends upon four key factors: the household formation rate, housing vacancy rates, non-residential building investment, and the liquidity in the state's financial system. The first of these factors is determined by in-migration of new residents and the secular trend in the average household size; the second depends on the extent of excess construction activity in prior periods. Determining factors for building investment are quite complex but chiefly involve a trade-off between interest rates and businessmen's expectations about the

Figure 2

Population Growth

April 1, 1970 – April 1, 1979



Source: *Florida Population Estimates*, Feb. 1980. Cartography by Florida Resources and Environmental Analysis Center, FSU.

TABLE 2
INDUSTRIAL PRODUCTION: PERCENT CHANGES

Based on Seasonally Adjusted Indices

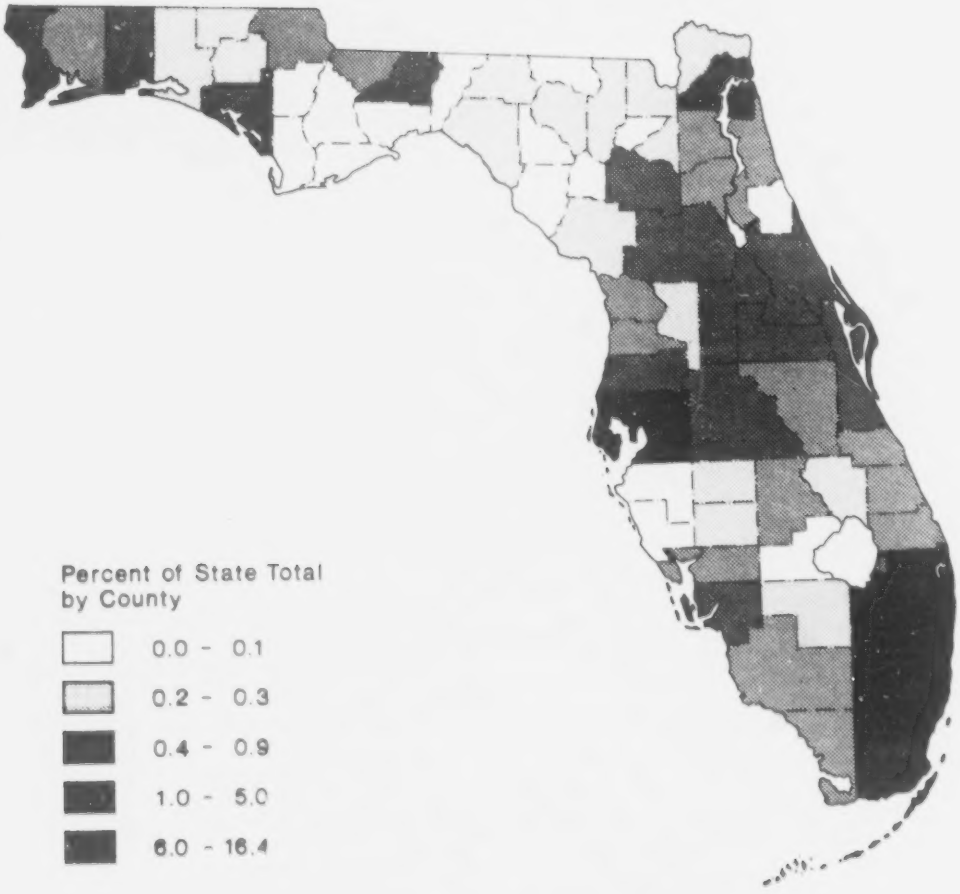
	1979											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Change From Previous Month												
Total Index	-.2	.3	.7	-1.4	1.1	.1	.1	-.8	.5	-.1	-.3	.3
Final Products	.0	.5	1.0	-1.9	1.7	-.1	-.3	-1.0	1.1	-.3	-.1	.5
Consumer Goods	-.6	.6	.9	-2.5	1.9	-.1	-.7	-1.7	0.0	-.1	-.5	.1
Durable Consumer Goods	-.9	.4	1.6	-7.3	5.9	-1.2	-.9	-6.2	2.9	.4	-2.0	-1.1
Nondurable Consumer Goods	-.4	.7	.6	-.4	.5	.3	-.6	.2	.3	-.3	.3	.6
Business Equipment	.8	.5	1.1	-1.2	1.6	.1	-.1	.1	1.2	-1.1	.2	1.0
Intermediate Products	.6	.4	-.6	-.4	-.1	.0	-.1	.8	-.5	-.1	.0	-.1
Materials	-.8	.1	.7	-1.2	.8	.5	.7	-1.0	.2	.1	-.5	.1
Durable Goods Materials	-.9	-.1	.8	-2.2	1.4	1.0	.8	-1.9	-.1	-.1	-1.2	-.1
Nondurable Goods Materials	-.5	.8	.4	-.1	.5	-.2	.7	.7	.5	.3	.0	.8
Manufacturing	-.3	.5	.8	-1.9	1.5	.1	.1	-1.1	.7	-.2	-.4	.3
Nondurable	-.6	.8	.6	-.8	.7	.1	.7	.1	.2	-.4	.2	.5
Durable	.0	.3	1.0	-2.7	2.1	.0	-.3	-2.0	1.2	-.1	-.8	.1
Mining and Utilities	-.8	-.6	.3	.2	-.3	-.3	.5	.8	-.3	.6	.4	.6
Change From Same Month A Year Ago												
Total Index	8.2	8.3	7.7	4.4	5.2	4.4	3.9	2.4	2.6	1.7	.8	.3
Final Products	7.4	6.9	5.9	2.7	4.5	3.9	2.7	1.0	1.9	1.2	.9	.8
Consumer Goods	5.2	4.3	3.7	-.3	2.0	1.7	.7	-1.6	-.7	-1.1	-1.6	-1.6
Durable Consumer Goods	8.7	6.3	3.8	-6.7	.2	-1.6	-3.0	-8.7	-5.4	-6.3	-8.3	-8.7
Nondurable Consumer Goods	3.7	3.5	3.6	2.6	2.8	3.2	2.3	1.5	1.3	1.2	1.4	1.6
Business Equipment	10.6	10.0	9.1	6.8	8.2	7.1	6.0	5.0	6.0	4.2	4.3	4.2
Intermediate Products	9.8	7.5	6.6	5.1	4.7	3.6	3.0	3.2	2.7	2.0	1.1	-.3
Materials	9.7	10.3	9.9	6.3	6.3	5.5	5.6	3.9	3.4	2.1	.7	-.3
Durable Goods Materials	12.4	13.1	12.8	7.6	8.5	8.0	6.8	3.8	2.7	1.2	-1.0	-2.6
Nondurable Goods Materials	7.8	7.1	6.3	5.1	5.5	4.3	6.1	6.4	5.3	5.0	4.1	4.0
Manufacturing	8.6	9.0	8.3	4.6	5.9	5.1	4.3	2.6	2.6	1.7	.7	.1
Nondurable	5.4	6.0	6.0	4.0	4.5	3.8	4.4	3.7	3.3	2.8	2.4	2.1
Durable	11.1	11.3	10.1	5.1	7.0	6.2	4.3	1.7	2.1	.8	-.6	-1.4
Mining and Utilities	5.7	5.2	4.1	1.9	.9	-.1	.1	1.2	1.3	.5	.8	1.2

Source: Board of Governors, Federal Reserve System.

Figure 3

Population Distribution

April 1, 1979

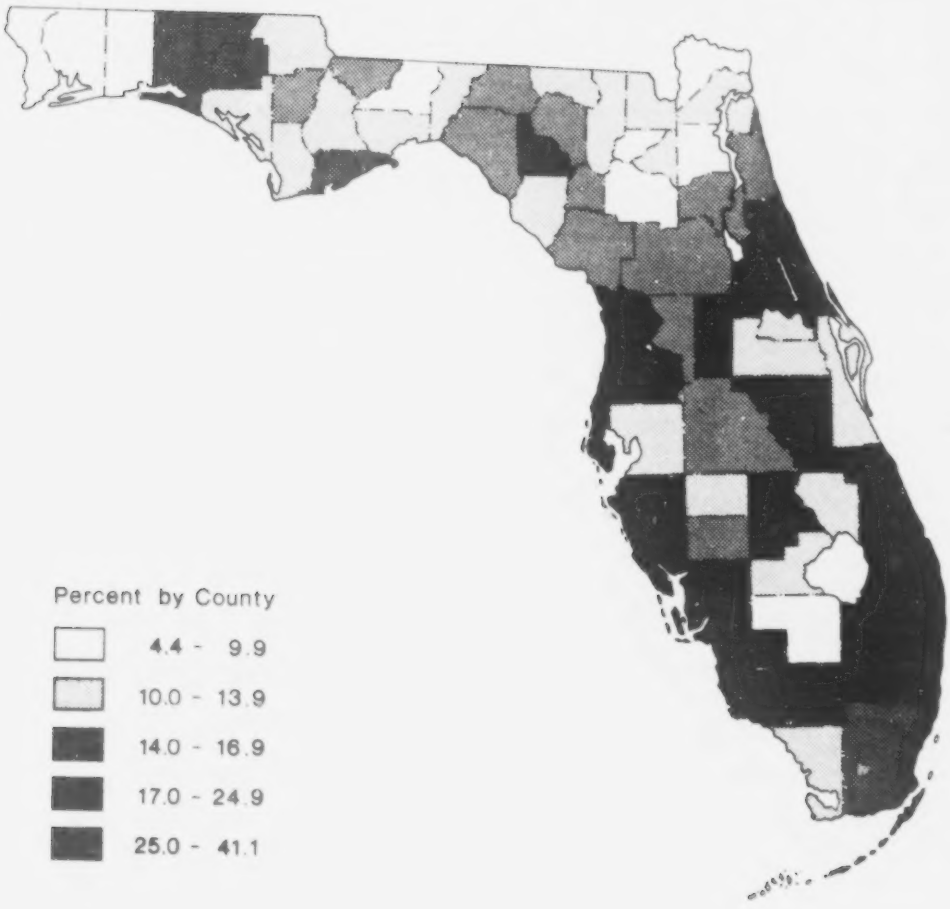


Source: *Florida Population Estimates*, Feb. 1980. Cartography by Florida Resources and Environmental Analysis Center, FSU.

Figure 4

Population 65 Years and Older

July 1, 1978



Source: *Florida Population Estimates*, Feb. 1980. Cartography by Florida Resources and Environmental Analysis Center, FSU.

future economic health of Florida--this last, of course, is closely related to projections of the size, character, and geographic distribution of future influxes of population. Since it is a very small part of the nation's money and capital markets, relative liquidity in the state's financial system is largely a function of legal maximum interest rates payable to or by financial intermediaries.

TABLE 6
TOURIST SHARES* BY MODE

	1975	1976	1977	1978	1979
Air Tourists (%)	26.44	27.65	32.38	33.38	37.75
Auto Tourists (%)	73.56	72.35	67.61	66.62	62.25

*Based upon appropriate fourth quarter seasonally adjusted numbers.

Source: Florida Department of Commerce, Division of Tourism.

In all factors important to a strong construction sector, Florida made substantial progress during 1979, and the results have been a construction boom, withstanding even the initial impacts of the New Monetary Policy. Most crucially, in 1979, Florida's population averaged 3.6% above the average for 1978. The rapid inflow in population, almost five times as large as the population growth for the nation, was amplified by the decline in average household size from 2.6 to 2.5 persons so that total households increased by 5.4%--since this exceeded the growth in the housing stock, vacancy rates declined slightly, magnifying the existing demand for new housing construction during the year. The supply response of home builders has been far more measured in the current expansion than in previous periods of high growth, due in part to the responsible loan policies of Florida's financial intermediaries. These policies, formulated by managers blooded in the housing construction collapse of 1974-75, discouraged serious imbalances from developing through speculative building. During the second half of the year, state government moved to assure that legal restrictions would not choke off new construction loans and mortgages. This action greatly assisted in maintaining a steady flow of funds to credit worthy Florida borrowers and a smooth adjustment to the tighter credit that developed in the last quarter.

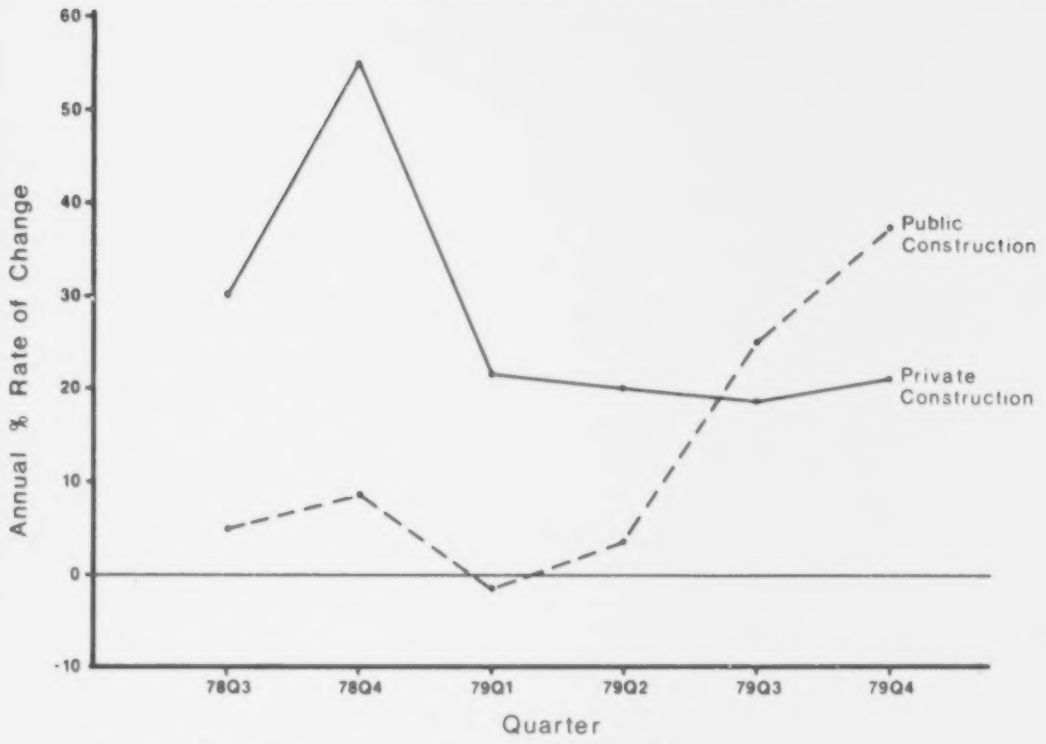
Expectations affecting building investment cannot be precisely quantified, although the results make it quite clear the businessmen felt that Florida had good prospects. For 1979, taxable expenditures for building investment increased by 22.6% over 1978 levels (compared to 20.6% for the U.S.).

Figure 5 shows the quarterly rates of growth in public and private construction for 1979. Private expenditures dominated in volume and growth since they comprise 85% of total expenditures and, on an annual average basis, private construction increased by 28.5% in 1979 while public construction only increased by 7.1%. Public construction did show an accelerating pattern of growth in the last three quarters of the year in consonance with the Administration's counter-cyclical efforts.

Table 7 details progress made in various construction categories relative to year earlier levels. It is clear from the table that substantial growth occurred in the last half of 1978 and early in 1979, and that the construction sector showed a pattern of decelerating growth in its volume of business across most types of projects in the state.

Figure 5

Construction Expenditure Growth: Public vs. Private



Source: Executive Office of the Governor, Revenue and Economic Analysis

EMPLOYMENT TRENDS

The strong growth in population and construction and the maintenance of a respectable level of tourist activity insured that there would be sufficient internal demand to sustain growth in Florida's major industrial sectors in 1979. For the year, total non-farm employment expanded by 4.2% over the average level for 1978. Moreover, total employment showed an accelerating pattern of growth, which caused the fourth-quarter-to-fourth-quarter gain to be higher at 4.6%. This compares quite favorably to the nation as a whole, which experienced an annual average growth of 3.6% and a fourth-quarter-to-fourth-quarter growth of 2.7%. Major components of employment growth are set forth in Table 8.

Employment in contract construction grew at a seasonally adjusted 14.2% rate in the first quarter of the year; growth slowed to about 2.4% during the second and then accelerated at 9.6% and 18.9% annual rates in the last two quarters. By the end of the year 237,500 workers were employed by the industry, up 23,700 from year earlier totals.

The evidence indicates that Florida was quite successful in attracting new manufacturing jobs. While the U.S. as a whole experienced manufacturing employment growth of less than 0.7% in 1979, Florida's manufacturing sector increased employment by 5.6% to 459,500 by year end and provided 13.8% of all jobs in Florida.

An even greater success was achieved in the Finance, Insurance and Real Estate industry group as employment there logged a 7.8% increase--its third straight year of growth in excess of 7%. Above average growth rates were also reported in Services (5.6%) and Regulated Industries (Transportation, Communications, and Public Utilities) at 6.8%, again reflecting the rapid growth in population over the year.

Two segments of Florida's economy grew much more slowly than the state average

in terms of new jobs created. Employment in the largest industry in Florida--Retail and Wholesale Trade--grew by only 2.4% over the course of 1979. This can be largely attributed to the fact that the growth in tourism was significantly restrained by gasoline shortages to only about 2.1% and by the fact that even though dollar volume of (taxable) sales of consumer goods were up by 16.9%, real sales increased by less than 6% due to the increase in consumer prices. Trade sector employment in Florida grew only slightly faster than for the national industry. Florida's slowest growing sector in terms of employment was federal, state, and local government; on the average, governmental jobs in Florida increased by 0.8% as compared with the 1.2% for all levels of government in the U.S. It is interesting to note that government was the only major sector of the state's economy that developed more slowly than the national correspondent, and while for the nation, the government grew almost twice as fast as the population; Florida government grew less than a fourth as fast as the population.

Growth in employment far in excess of population and labor force growth has permitted the unemployment rate in Florida to fall below the national rate for the first time since the recession of 1974-75. The unemployment rate dropped below 7% in the last quarter of 1978, when it hit 6.5%. It then dipped to 6.2% in the first quarter of 1979 and to 5.7% in the second quarter. The impacts of second quarter energy shortages on tourism and the national pause in Manufacturing were felt in the third quarter as unemployment rose sharply by one-half point to 6.3%. Recovery came from renewed manufacturing activity and explosive growth (9.7% for the third quarter and 19.3% for the fourth quarter at annualized rates) in construction activity. The fourth quarter reduction in the unemployment rate to 5.7% was also aided by continued strength in Services, Regulated Industries and Finance, Insurance and Real Estate, which had fourth quarter annualized growth rates of 9.0%, 7.3%, and 8.9%, respectively.

INCOME AND INCOME DISTRIBUTION

A key indicator of current economic performance and near-term future potential in a regional economy is the existing rate and recent progress in the flow of income to residents in the economy. There are several useful ways to exhibit Florida's current status with respect to this performance measure. One is to consider the total income received in current value terms on an annual basis; in this regard, personal income in Florida is expected to average $74.7 billion in 1979. The last value actually measured, for the third quarter of 1979 was a $75.9 billion annual rate of income and was 14.2% higher than the rate of income flow in the third quarter of 1978. On a year-to-year average basis, income is expected to increase by 14.9% from the $65.1 billion achieved in 1978.

The nominal dollar income rate gives a good indication of the ability of consumers to command goods and services at current prices, but it is distorted as a measure of progress over time by changes in the average price level. This is especially the case in the present environment of high inflation. Thus, using constant 1972 prices, real personal income grew by a more modest 6.2% between the third quarters of 1978 and 1979, and is expected to grow by 5.4% on an annual average basis. This is almost five times the expected national rate of growth.

Real personal income figures are significant in the assessment of gains or losses in the ability to sustain aggregate consumption from current activity, but they are not good measures of the economic welfare of individuals in Florida relative to those in other states. Partial comparisons of relative economic welfare can be made from data on income per capita and disposable (after tax) income per capita. Current estimates indicate that 1979 nominal per capita personal income for Florida will grow by 13.4% on a year-to-year basis to $8,074. Per capita disposable income is projected to be $7,375 for 1979 versus $6,656 for 1978. Because of the extremely rapid rate of increase in the price level, this means real per capita income measures are actually expected to grow during 1979 in Florida although they will decline for the nation as a whole. Relative to all states in 1978, Florida ranked 25th in per capita disposable income.

A third way to evaluate income is to analyze its distribution and its sources by geographic region, components and sources. Florida's income exhibits substantial variation by geographic region and degree of urbanization. On a per household basis, after adjusting for relative price differences, income in the richest county in Florida exceeds income in the poorest county by a factor of 2.4. An almost identical difference exists on

a per capita basis, although the counties involved are different. Additionally, per capita income is 26% higher in metropolitan areas than in non-metropolitan areas. In terms of aggregate income, the top five counties receive over 53% of all income; the bottom five receive less than 0.2% of all income. The richest county alone, with about 16.7% of the population, receives almost 20% of all personal income. Table 9 details the distribution of income by county on the basis of per capita income, per household income and per household adjusted for relative prices differences for 1977.

Another interesting way to analyze income in Florida is to compare income components in Florida with those in the U.S. as a whole. Table 10 reveals several significant structure differences; Florida's income components are clearly characteristic of its more mature population. For instance, relative property income, derived from dividends, interest and rent, is almost 40% higher in Florida, while wages and salaries are 13% less important to Florida than the corresponding U.S. income components. Over the course of 1979, rates of changes over components are strongly related to the overall changes in employment.

Table 11 delineates the performance of income components, with a detailed breakdown by industry wages and salary growth patterns. All rates are in nominal terms and exhibit strong positive movement. Table 12 compares the basic structure of labor and proprietor's income as it originates by industry in Florida versus the U.S. To some extent, Table 12 reveals why Florida's economy is less cyclically sensitive than the U.S. economy. In particular, it is historically the case that certain industries show more variation in employment and output than others. Primary minerals production, durables manufacturing in particular and manufacturing in general, construction and transportation have typically shown the most pronounced patterns in business cycles. It is obvious from the data that, with the exception of construction, these are the very industries which have far less than average influence in Florida. In fact, since 1974, Florida's economy has probably become more recession resistant since construction has declined substantially as a source of employment and income.

TABLE 9
BY COUNTY, DISTRIBUTION OF PERSONAL INCOME: 1977

County	Income ($, millions)	Per Capita Income	Household Income	Price Level Adjusted Household Income
Alachua	744	5868	15844	15033
Baker	80	4638	14842	15307
Bay	487	5311	14871	15533
Bradford	73	4269	12380	12942
Brevard	1497	6426	18635	19136
Broward	6771	7834	19585	19201
Calhoun	36	4119	11533	12145
Charlotte	276	6222	13688	13892
Citrus	179	4431	10634	11126
Clay	298	5545	15635	15662
Collier	512	7663	19158	18788
Columbia	157	5275	15298	15047
Dade	11177	7755	20163	19851
DeSoto	89	5174	13452	13950
Dixie	24	3717	10408	10723
Duval	1809	6852	19186	19552
Escambia	1240	5493	15930	16880
Flagler	39	4842	12589	12913
Franklin	26	3332	8663	8886
Gadsden	153	4492	14824	15568
Gilchrist	25	4698	13134	13343
Glades	21	3923	10592	10596
Gulf	56	5325	15975	17152
Hamilton	36	4165	11662	12255
Hardee	89	5305	16446	16970
Hendry	114	7278	21106	21414
Hernando	139	4970	12425	12800
Highlands	213	5357	13392	13930
Hillsborough	3564	6145	16592	16819
Holmes	31	3755	10138	10774
Indian River	345	7311	18278	18212
Jackson	176	4684	13584	14276
Jefferson	41	4243	12729	13074
Lafayette	15	4196	11329	11590
Lake	552	5997	14393	14820
Lee	1048	5336	15840	15680
Leon	736	5690	15387	16187
Levy	73	4426	11950	12382
Liberty	14	3669	10640	10776
Madison	63	4311	12502	13469
Manatee	796	6350	14605	14805
Marion	526	5157	13408	13814
Martin	334	6991	16778	16410
Monroe	343	6957	18784	17010
Nassau	137	4487	12998	13545
Okaloosa	571	5497	15392	15947
Okeechobee	74	4113	11928	12023
Orange	2929	7093	19151	19870
Osceola	189	5004	12510	13053
Palm Beach	3757	7878	18907	18648
Pasco	692	4885	11236	11752
Pinellas	4567	6966	15325	15455
Polk	1654	5972	16124	16490
Putnam	206	4576	12813	13520
St. Johns	234	5689	14791	15318
St. Lucie	393	5576	14498	14594
Santa Rosa	250	5139	13417	16271
Sarasota	1375	8249	18148	18123
Seminole	757	5320	14896	15455
Sumter	91	4373	11370	11646
Suwannee	90	4564	12323	12933
Taylor	81	5680	15904	16715
Union	36	3525	9881	10351
Volusia	1281	5995	13789	14096
Wakulla	37	4026	12078	12314
Walton	78	4207	11780	12393
Washington	57	4077	11416	12156

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business.

TABLE 10
PERSONAL INCOME AND COMPONENTS:
FLORIDA AND U.S.
(1979, Q2)

Income Component		Florida ($, billions)		Florida (Percent of Total)		U.S. Percent of Total)
Wages and Salaries		40.9		55.7		64.2
Other Labor Income		3.9		5.3		6.2
Property Income		14.2		19.3		13.8
Proprietor's Income						
Nonfarm	3.2		4.3		5.2	
Farm	1.4		2.0		1.5	
		4.6		6.3		6.7
Net Transfer Payments		9.8		13.4		9.1
Total		73.4		100.0		100.0

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business.

TABLE 7
FLORIDA 1979 CONSTRUCTION TRENDS: PERCENT CHANGE FROM PREVIOUS YEAR

Expenditures	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Total Private	40.0	42.1	29.2	38.0	28.6	27.8	25.7	28.9	25.3	27.2	24.6	9.8
Single-Family Housing	32.3	30.0	7.0	23.1	10.9	11.2	5.4	13.4	13.7	7.3	7.5	-18.9
Multi-Family Housing	94.1	116.0	127.0	120.1	108.6	101.6	98.6	87.7	87.8	88.4	77.9	72.5
Durable Manufacturing	42.9	43.5	42.1	44.5	44.0	54.2	56.6	56.0	46.8	49.3	48.6	57.8
Nonduable Manufacturing	379.1	440.1	159.4	146.4	105.1	87.9	65.0	52.0	16.1	14.1	-5.6	-23.3
Other Services	46.8	48.0	40.4	43.4	38.3	34.9	31.3	29.4	29.4	28.6	20.0	19.9
Trade/Finance, Insurance, Real Estate	40.0	42.0	42.7	40.9	30.8	26.0	23.2	18.7	17.0	17.5	14.3	13.7
Regulated Industries	-37.7	-47.6	-50.5	-29.8	-25.8	-21.2	-10.8	-3.3	10.9	24.4	35.7	49.9
Non-residential Housing	89.2	90.3	77.4	47.0	43.4	36.2	25.3	34.9	31.1	28.1	8.4	15.2
Education	18.2	23.3	1.2	-3.2	11.8	15.1	15.3	10.9	10.8	15.3	1.0	9.0
Total Public	2.1	0.0	1.9	1.4	3.5	6.2	6.6	7.3	10.6	11.9	14.7	18.7
Housing	0.9	4.1	18.7	19.4	33.9	83.2	104.8	84.7	84.1	81.5	72.2	74.8
Education	11.2	13.2	10.5	13.2	10.8	5.9	0.8	-3.5	-7.5	-5.9	-7.3	-6.7
Regulated Industries	5.6	1.7	3.9	1.9	1.6	3.1	2.4	3.9	6.8	10.0	15.1	20.5
Other Public	-12.9	-12.9	-9.9	-8.2	1.7	8.8	15.8	19.6	30.9	25.1	25.7	28.5

Source: Executive Office of the Governor, Revenue and Economic Analysis.

TABLE 8
FLORIDA EMPLOYMENT TRENDS BY INDUSTRY

Industry	Annualized Percent Rate of Change						Percent of Total Non-Farm Employment			
	78Q3	78Q4	79Q1	79Q2	79Q3	79Q4	1967	1977	1978	1979
Construction	11.4	5.9	14.2	2.4	9.6	18.9	7.1	6.0	6.6	6.9
Manufacturing	10.2	9.9	6.6	0.7	7.5	7.7	16.6	13.4	13.7	14.0
Services	4.5	7.0	2.6	3.8	6.1	9.8	18.0	21.8	21.6	21.7
Trade	3.3	3.0	2.7	0.2	1.1	5.7	26.5	26.2	25.9	25.4
Regulated Industries	1.2	12.4	4.8	8.0	9.2	6.9	7.1	6.4	6.1	6.3
Finance, Insurance, Real Estate	8.0	12.3	8.7	6.3	8.6	7.7	5.9	6.9	7.0	7.3
Government	2.8	-2.5	-6.5	10.1	4.3	-1.0	18.9	19.3	19.2	18.6
Private, Non-farm Total	4.1	6.9	4.9	2.5	5.5	8.5	--	--	--	--
Non-farm Total	3.8	5.1	2.7	3.9	5.3	6.6	--	--	--	--

Source: Transformation of data from Florida Department of Labor and Employment Security.

TABLE 11
GROWTH IN FLORIDA'S INCOME COMPONENTS

Component	Annualized Percent Rates of Change					
	78Q3	78Q4	79Q1	79Q2	79Q3	79Q4*
Wages and Salaries	20.2	15.3	12.5	13.3	13.2	15.8
Construction	24.1	19.3	20.3	24.5	29.1	24.4
Manufacturing	24.2	20.8	7.7	15.9	8.3	16.8
Regulated Industry	30.4	22.4	17.5	13.1	25.2	18.9
Trade	16.8	15.5	10.4	7.0	5.6	15.4
Finance, Insurance, and Real Estate	19.7	15.1	17.0	11.4	20.8	16.0
Services	21.1	16.4	10.5	11.4	18.4	18.9
Government	15.1	6.8	6.8	16.1	7.5	8.2
Farm	21.0	26.2	27.6	16.7	7.0	9.1
Other Labor Income	26.0	16.8	16.2	23.8	22.1	24.8
Property	20.5	18.6	16.9	14.3	8.5	21.8
Transfer Payments	20.9	8.6	9.7	12.3	32.4	13.3
Unemployment Compensation	30.7	-23.4	-49.1	-18.9	88.7	-62.1
Net OASDI	23.7	9.7	-23.7	30.1	49.8	11.7
Other	20.7	9.4	18.6	5.8	31.7	14.3
Proprietor's Income	7.8	0.5	35.9	34.1	-9.6	7.8
Non-farm	11.1	14.7	2.7	3.6	19.5	9.8
Total Personal Income	19.9	14.0	13.4	15.1	14.3	16.4

*Estimated

Source: U.S. Department of Commerce, Bureau of Economic Analysis

TABLE 12
LABOR AND PROPRIETOR'S INCOME BY INDUSTRY:
U.S. AND FLORIDA, 1978

Source	Percent of Personal Income		
	Florida	U.S.	Ratio
Agriculture	0.6	0.3	2.00
Mining	0.2	1.2	0.17
Construction	4.8	4.7	1.02
Nondurables Manufacturing	3.8	7.1	0.54
Durables Manufacturing	5.3	13.1	0.40
Transportation	3.1	3.3	0.94
Public Utilities, Communication	2.7	2.6	1.04
Wholesale Trade	4.4	5.0	0.88
Retail Trade	8.8	7.7	1.14
Banking	0.9	1.1	0.82
Other Finance, Insurance and Real Estate	4.1	3.3	1.24
Hotels, Lodging, Amusement	1.7	1.0	1.70
Business and Repair Services	2.6	2.7	0.96
Professional, Social Related	8.2	8.3	0.99
Personal and Household Services	1.3	1.0	1.30
Federal Government	4.1	4.2	0.98
State and Local Government	8.3	8.4	0.99

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business.

PART II

ECONOMIC OUTLOOK: 1980-1989

The sequel examines the economic prospects for Florida and the nation for the next decade. The long-term forecast developed represents an important and challenging new emphasis for the Economic Report of the Governor. Obviously, preparation of an accurate economic forecast for a ten-year span of time is considerably more difficult than developing a short-run projection. Short-run economic forecasts are for periods of time sufficiently brief (two years or less) that the major forces and institutions that will intiate economic changes exist at the time the forecast is made. During a ten-year period of time, however, new technologies, ideas, bureaucracies and industries can arise and appreciably affect the course of economic events. Thus, for long-term forecasts, the character and scope of the underlying assumptions are of a different order. Realism about the current technology of forecasting dictates that in long-term projections, the focus should shift from the timing of cyclic turning points to selecting the most likely long-term secular trends.

Nevertheless, the importance and usefulness of long-term forecasts should not be understated. For one thing, it is useful to surface the expectations of policy makers and analysts in order to foster public discussion and widespread understanding of the issues being addressed. A second reason for making long-term forecasts is to assure that the long-term implications of short-run solutions to immediate problems are explicitly considered. This lowers the probability that current solutions will generate more intractable problems for future decision makers. Finally, emphasis on long-run forecasts makes it feasible to resolve the obverse issue, i.e., how to institute public sector programs with high short-term costs with small or even negative short-term payoffs in order to achieve large long-term benefits.

ENERGY IN THE EIGHTIES

During the next decade, nature does not decree that there will be a shortage of energy; nor does science, as even current technology can provide any number of recipes for producing indefinite amounts of energy for indefinite periods of time. The energy problem for the decade will be the vulnerability of the standard of living of American citizens to large fluctuations in petroleum prices instigated by international and domestic political intervention. The extent of the exposure is defined by an ability to limit adjustments that must be made in the consumption of all goods to accommodate the effects of price increases in petroleum. For a given path of real price increases,

adjustments in lifestyle can be contained only by changing the efficiency of consumption technology; this efficiency is embodied in the accumulated stocks of all consumer and producer durable goods which use or generate energy.

The existing stock of energy consuming or producing durable goods is the result of a seventy-year period of declining oil prices. Further, after World War II, technology developed under the economic assumption that availability of immense known petroleum reserves would be maintained by free markets operating within a world order preserved by the dominant military position of the United States. Because of this, the industrial base of the free world was built on oil. As shown in Table 13, free world energy needs were met increasingly by oil so that by 1973, 55% of all energy consumed was derived from oil. From a physical standpoint, this was a sound approach to economic development. As indicated by Table 14, the aggregate "published proven" reserves of oil are quite large, 88.1 billion tons of oil by the end of 1978 at then current market prices. Even if there were no new discoveries* and relative prices were somehow held constant, this stock could last into the next century.

TABLE 13
ANNUAL WORLD ENERGY CONSUMPTION AND PRODUCTION
(Thousands of MTOE)[1]

Year	Consumption		Percent	Production	
	Energy	Oil	Oil Share	Indigenous	OPEC
1968	3.35	1.64	49	.71	.94
1969	3.60	1.79	50	.74	1.04
1970	3.79	1.94	51	.80	1.17
1971	3.92	2.04	52	.80	1.26
1972	4.08	2.18	53	.82	1.35
1973	4.29	2.34	55	.82	1.55
1974	4.24	2.26	53	.80	1.53
1975	4.15	2.20	53	.79	1.36
1976	4.38	2.35	54	.79	1.54
1977	4.49	2.41	54	.85	1.57
1978	4.64	2.48	53	.90	1.49

[1]MTOE = Millions of tons of oil equivalents

Source: BP Statistical Review

At current consumption rates, for instance, the 88.1 billion tons of oil would last for 36 years. At rates of growth experienced since 1973, the ready-to-produce inventory would last for 30 years. As indicated by Table 14, however, the U.S. has a problem with the distribution of reserves. The largest owners of economically feasible petroleum reserves have a minor stake in the present world configuration of industrial capital and wealth.

Unfortunately, the free market assumption has been proven invalid by the experience of the last six years. Domestic development of natural gas reserves was stunted by

*Since 1978, large new additions have been proven or inferred, especially in Saudi Arabia. Additionally, Standard Oil of California recently drilled one of the most expensive oil wells in history ($33 million for a single hole), and discovered an enormous field of 10-24 billion barrels off of Newfoundland, and Amoco estimates that new finds in Wyoming may prove out in excess of 10 billion barrels.

TABLE 14
WORLD "PUBLISHED PROVEN" RESERVES: 1978

Area	Oil		Natural Gas	
	Thousands of MTOE[1]	Percent of Total	Thousands of MTOE[1]	Percent of Total
North America	5.5	6.5	6.9	11.1
South America	5.8	6.4	2.7	4.5
Western Europe	3.3	3.7	3.5	5.7
Middle East	50.3	56.9	17.7	29.0
Africa	7.7	8.9	4.5	7.4
Soviet Union	9.7	10.9	22.1	36.1
China	2.7	3.1	0.6	1.0
Rest of World	3.1	3.6	3.2	5.2
World	88.1	100.0	61.2	100.0

[1]MTOE = Millions of tons of oil equivalents

Source: BP Statistical Review

regulations in place since 1954, and the oil production system has been thwarted by price controls put in place in 1971. Such myopic policies strengthened the hand of OPEC and led to the now familiar pricing patterns.

Cartel pricing has caused massive revisions in risk assessments and in relative values of all industrial and residential structures, the entire transportation network, large quantities of producers' durable equipment, labor and customary and legal arrangements. The fundamental reevaluations have set in motion a process of gradual adjustments to major components of the affected stocks by diverting investment expenditures from building new stocks of producer or consumer durables to the replacement of previously economical modes of production and lifestyles. This process has been retarded and unbalanced, however, by large margins of uncertainty--not only that foreign reserves of oil might be sporadically unavailable, or only available at a very high price, but that because when oil is priced by competitive markets, it is the most efficient alternative given our current technology. Thus, a concerted commitment to change by an individual industry or nation could at any time be undermined by the return to the market of large quantities of relatively low-priced oil. Change has been further slowed by the internal friction always involved in massive transfers of wealth and power or when standards of living fall (through a downward shift in labor productivity--this need not, of course, affect productivity growth from a lower base). Moreover, domestic institutional vested interests have developed which will benefit from rapidly rising relative oil prices with inhibited substitution opportunities in the consumption and production of energy.

The new order in prices, institutions, and uncertainty has indeed caused change to proceed quite rapidly in those areas where the cost of bad decisions is low. Substantial adjustment has occurred on the consumption side, while relatively little has changed in the production and transformation processes where the costs and lead times for change are quite large. For instance, Table 15 shows the recent relationship between the rates of change in prices and consumption of various types of energy by households. It is clear that in 1978, when the relative price of energy was declining, consumption of all types of energy was growing.

In 1979, the rise in crude oil prices drove the real prices of gasoline and fuel oil up sharply and cut heavily into their consumption. Electricity became cheaper relative to all other goods so that its consumption actually increased, and the increase in the relative growth of natural gas prices slowed the rate of growth in the consumption of natural gas.

The basic changes being made are in consumption technology--people are insulating homes better, using the auto stock more efficiently, turning down thermostats, and making a number of similar minor adjustments (preserving money income at the expense of comfort). Business is doing much the same to preserve profit margins.

TABLE 15
PRICES VERSUS CONSUMPTION OF ENERGY

	Annual Average Percent Change			
	1978		1979	
	Price	Consumption ($72)	Price	Consumption ($72)
Personal Consumption				
All Goods	6.8	4.5	8.9	2.6
Energy	6.0	3.4	25.2	-1.4
Gasoline	4.4	3.4	34.7	-4.5
Fuel Oil and Coal	6.0	1.0	40.2	-6.2
Electricity	7.4	3.3	8.5	4.4
Natural Gas	9.9	1.6	16.0	1.2

Source: Data Resources Review, February, 1980.

On the production side, however, the increase in the value of output apparently has not increased the expected risk-adjusted rate of return on investment in primary energy production. In fact, the "energy share of investment spending" actually declined from 29.2 to 28.2% of total fixed investment. Some real progress has been made in transformation of primary energy into forms suitable for final consumption by the electric utilities--as the wholesale price of coal increased by only 4.9% in 1979 (versus 12.8% for the total WPI for industrial commodities in 1979), utilities boosted the fraction of coal generated electricity from 41.7% to 45.6%. This has come largely at the expense of petroleum, the share of which declined by nearly 20%, from 17.9% to 14.4%. This may be somewhat deceptive, however, given the coal mining strike in 1978. The shift was made possible by the large excess capacity of power generating facilities in many areas of the country rather than by significant progress in coal conversion programs. While such a shift is beneficial and indeed mandated by the new structure of energy prices, it releases residual fuels rather than distillates, and thus does little to provide relief in the most pressing energy problem facing the U.S. That problem is to stabilize the price of portable energy sources for the transportation system and for the heating requirements of households. For all practical purposes, this means reducing uncertainty about the supply of petroleum distillates--gasoline, fuel oil, and aviation grade kerosene.

There are two basic ways of approaching this problem. One is to radically increase the price elasticity* of demand for these fuels. With highly elastic demand, if producers cut output, they suffer permanent revenue losses. Under the current highly inelastic situation, if all foreign producers can act together to raise prices, within wide limits their

*Price elasticity is the percentage change in consumption caused by a 1% change in price. For motor fuel, for instance, price elasticity has been estimated by various studies to range between -0.06 to -0.6. In the second, "more elastic" case, a 1% increase in the price of motor fuel would cause consumption to fall by 0.6%. Even at this level, however, short-run revenue to the seller would increase if supplies were decreased.

revenues actually increase. Simply reducing demand without increasing demand elasticity is no solution, since it still leaves producers with incentives to cut output. Short-run demand for petroleum distillates can be made more elastic by developing the capacity to produce and distribute close direct substitutes (oil from coal, liquid hydrides, etc.) that can be consumed using existing transportation and household heating technology and by increasing the consumption efficiency of each BTU generated by dispersed burning of petroleum distillates in the households or the transportation system. The main problem with actually doing this in the transportation system is that it entails a substantial social cost in the form of capital investment and perceived standard of living. The implicit risk was discussed previously, i.e., the investment may be for capital that will sit idle if oil prices decline. (The analogy of this to the problem of strategic military deterrence is difficult to ignore--the relative values and secondary effects involved are not as clear, however.) More importantly, substantially increasing price elasticity of demand for petroleum distillates by the transportation system requires action on a very broad scale that will take a long period of time to bring to fruition without the type of sacrifice in liberty and living standards normally justifiable only in time of war. Except for marginal improvements in energy efficiency, this avenue offers little for the first half of the eighties, although by the second half, modification of automobile fuel efficiency, an improved mass transit infrastructure, development of equivalent liquid fuel substitutes from unconventional sources, and changes in consumption patterns should offer some opportunities for dampening price volatility. More flexibility appears to exist in improving energy efficiency in household heating with marginal investments targeted to improved home insulation and retrofit or replace old or inefficient appliances and heating systems. The central theme of Florida's energy program is indeed to accelerate the increase in the elasticity of demand by creating energy efficiency incentives. Hence, a benefit-cost analysis of these proposals would be remiss not to consider the crucial secondary effects of encouraging energy price stability.

The second approach to stabilize the price of petroleum noted above is to identify large new reserves that can be produced competitively from secure locations. The military option in securing supplies being eschewed, the open option with the potential for payoff in the short run is to accelerate development of domestic reserves. While very large oil and gas reserves have been implied by various volumetric studies and recently been proven in various politically accessible areas, this option apparently has been disvalued by U.S. policy makers. Such can be inferred from the fact that the proposed centerpiece of the national energy policy is a new tax which will tend to reduce the final extraction of known reserves and to divert capital from domestic exploration and production of conventional petroleum. As currently envisioned, the revenues generated by the tax will be used to subsidize and shape consumption and to direct research efforts into presently noncompetitive substitutes from unconventional sources such as shale, tar sands, and coal. If a substantial fraction of the estimated $227 billion in revenues generated by the tax is indeed used to support the development of alternative fuels, the policy approach will manifest a rather remarkable long-run viewpoint. However, it will do little and, in fact, may prove deleterious in net effect for most of the coming decade with respect to stabilizing the world market price of oil. While not currently under active consideration, the negative aspects of the tax could be offset by several measures to reduce the risk of exploration. One obvious one would be to reduce the front end cost of drilling leases on publicly owned lands. These lease/royalty agreements could be modified without a significant loss in tax revenues by trading off lease bids for royalty rate bids. Lease bids not only increase the risk of exploration and consequently reduce competition, but also provide direct incentives for industrial concentration.

Another situation evolving from recent OPEC pricing behavior that may have serious implications in the next decade involves the problem of financing the transfer of wealth from oil importers to members of the OPEC cartel. Such a transfer will be quite large (in 1980, the U.S. bill for imported oil will exceed the total personal income generated in Florida), and the ability of the world's financial system to accommodate the transfer is suspect. After the first oil crisis in 1973, many lesser developed countries (LDC's) borrowed money to purchase oil. Since most OPEC nations were depositing their proceeds in the U.S. banking system, major U.S. banks were able to loan out, or "recycle," those deposits to enable the LDC's to finance their purchases.

U.S. money market center banks handled about half of the world's recycling

operations during the seventies. As a consequence, they have significant exposure in the same LDC's that are being hardest hit by the 1979-80 round of price increases. The implications for this are major for the performance of the domestic economy, if either (1) a number of LDC's default on the loans, or (2) the commercial banks cannot continue to support recycling. In the first case, a financial panic could be caused which would threaten the viability of world commerce (which absorbs about 10% of all domestic output), and in the second, the LDC's would have to turn to the International Monetary Fund (IMF). To provide assistance the IMF would likely impose conditionally on recipients, i.e., require austere financial management, reducing their demand for goods and services produced by American workers. Such a chain of events would have the positive secondary effect of a minor reduction in the world's demand for exported petroleum.

In the final analysis, there is not much prospect for significant improvement in the central energy problem for the first half of the eighties. It can be expected that prices will exhibit periods of relative declines interrupted by sharp upward realignments. On the average, petroleum prices will increase much faster than the average price level. It is likely that pressures for upward adjustments will build, especially during periods of strong growth in economic activity when inflationary pressures are otherwise strong. An added element to the pricing issue is the evident lesson of the Iranian revolution: rapid development can be culturally destructive. Thus, political caution will temper the risk assessments for the normal economic decisions to produce highly valued commodities at a rate sufficient to maximize expected present asset values.* However, economic incentives will restrain the OPEC cartel from pricing extremism, as they would risk large asset stores accumulated in the Western economies, the creation of too large an incentive to the development of alternative fuel sources, and extent of the market for their current level of output. Probably the worst case scenario for the OPEC cartel, strangely enough, would be extremely aggressive pricing by OPEC coupled with Western economies unable to develop alternative energy sources fast enough. To grind a cliche, necessity is the mother of invention, and the Western world has historically proven its inventiveness in finding excuses to expropriate resources from other nations by military force. This potential should act to inhibit even the most uninhibited cartel members.

INFLATION: PROSPECTS FOR POLICY

As the decade for the eighties began, the issue of inflation was moved to the forefront of political attention by explosive growth in prices for a broad spectrum of goods and services all along the production-distribution-consumption chain. In January, for instance, the Producer Price Index component for capital equipment increased at an annual rate of 21%. Also, consumer durables at wholesale increased at a 46% annual rate as wholesale prices for autos increased at a 27% annual rate, and consumer prices showed the worst monthly performance in six years, growing at an 18% rate. Consumer prices were paced by a 44% rate of increase in transportation costs (including a 136% annual rate of growth in gasoline), an 18% increase in the housing index, and an 18% increase in the cost of medical care. The only bright spot in the consumer price picture was the 1.2% annual rate of growth in food prices, and there seemed to be little chance for food prices to hold that trend.

The "new" inflation, as it is called, is indeed unique as to its causes and implications for policy. As long as inflation rates remained in the bandwidth of historical experience, many of the exacerbating factors contributing to the present situation did not come into play. Consequently, effective inflation policies were obvious, more simplistic and less difficult to administer. The seventies, however, brought about the complete breakdown of

*It should be noted that maximization of present value provides a very strong incentive to maximize current production for nations like Saudi Arabia. At a moderate real internal rate of discount of 5% a barrel of oil produced fifty years from now would have to be worth $325 per barrel in 1979 dollars to have a present value of $26 a barrel. Many substitutes are available to assure that crude oil will never be that valuable in a peacetime environment.

the supposed Phillips curve relationship which was the bedrock of Keynesian policy prescriptions (see Figure 6). The dynamics of the current instability in prices inextricably weaves together a wide range of disparate institutions and activities. It involves the erratic but exponential pricing policies of OPEC; the fiscal policy of the federal government; the structure of the federal tax system; management of the nation's financial system; economic policy and market adjustments being made to the petroleum crisis; all levels spending, investment, and hedging decisions by business and households; and, centrally, the management of money and credit by the Federal Reserve. The cumulation of these circumstances surfaced near the close of 1979 and early 1980, wrenching the economy as interest rates, in response to the price increases, intruded into institutional credit barriers and threatened the continued viability of major segments of the financial system.

Fundamentally, the rate of change in the average price level will not continuously change over significant spans of time unless either the ratio of the rate of increase in the production of money to the rate of increase in the production of goods is altered, or unless the demand for money* undergoes a sustained shift. As can be seen from Figure 7, movement in the CPI tracks the rate of change in the excess money supply, defined as the difference between the rate of growth in the money supply (M2) and the rate of growth in real economic activity. Divergences between the two can be largely explained by changes in monetary velocity (see Figure 8), which is the rate of turnover of the money stock in the economy. In a cross-sectional study of international inflation rates conducted by the Revenue and Economic Analysis Unit, for instance, it was found that over 80% of the variation in inflation rates for democratic nations could be explained by differing rates of monetary growth--even in the OPEC era.

If output for all goods remains fairly constant, but for some reason the price of one rises, then unless the money stock grows or the velocity of money increases, the prices of other goods will tend to decline, maintaining a constant average level of prices and clearing all markets of the excess supplies which would otherwise develop. In a modern economy, however, long-term dollar value contracts prevent smooth adjustment of relative prices, so that a change of the sort described above would induce excess supply conditions in many markets. Most importantly, of course, it would cause excess supply in the labor market (unemployment). For instance, in the Great Depression, goods prices fell so much faster than wage rates that on average real wage rates actually increased--for those who were able to find or keep jobs. In order to prevent institutional arrangements from distorting relative prices and generating unemployment, then, one policy instrument available to federal government is to inflate the money supply so that no nominal prices need decline when some particular price (such as the price of oil) is driven abruptly upward by external influences.

A second type of situation that can disrupt a stable relationship between the rate of monetary creation and the increase in real output can be derived from attempts to use monetary policies to maintain low interest rates for Treasury borrowing, despite rising credit demands. In this case, a key factor is that in the U.S., all interest rates are entrained by efficient financial markets--divergences that last more than a few days are only due to differing risk assessments and term structures. Thus, if the expected costs of a new Treasury issue is considered excessive, the FRB can conduct open market purchases of secondary issues to make space in the market for the new primary issues. This holds down all short-term interest rates, including the rates for Federal Funds, commercial paper, and bank loans. As a second effect open market purchases add to the reserves of the banking system, and thus inflate the money stock. The increased supply of money stimulates increased demand by directly increasing money balances available to the household and business sectors.

Alternative factors that can compound the problem of balancing monetary growth with growth in output are those which generate growth in output. For the most part, growth in output can be attributed to increases in employment or increases in labor productivity--which is in turn due to increasing the capital-to-labor ratio by investment.

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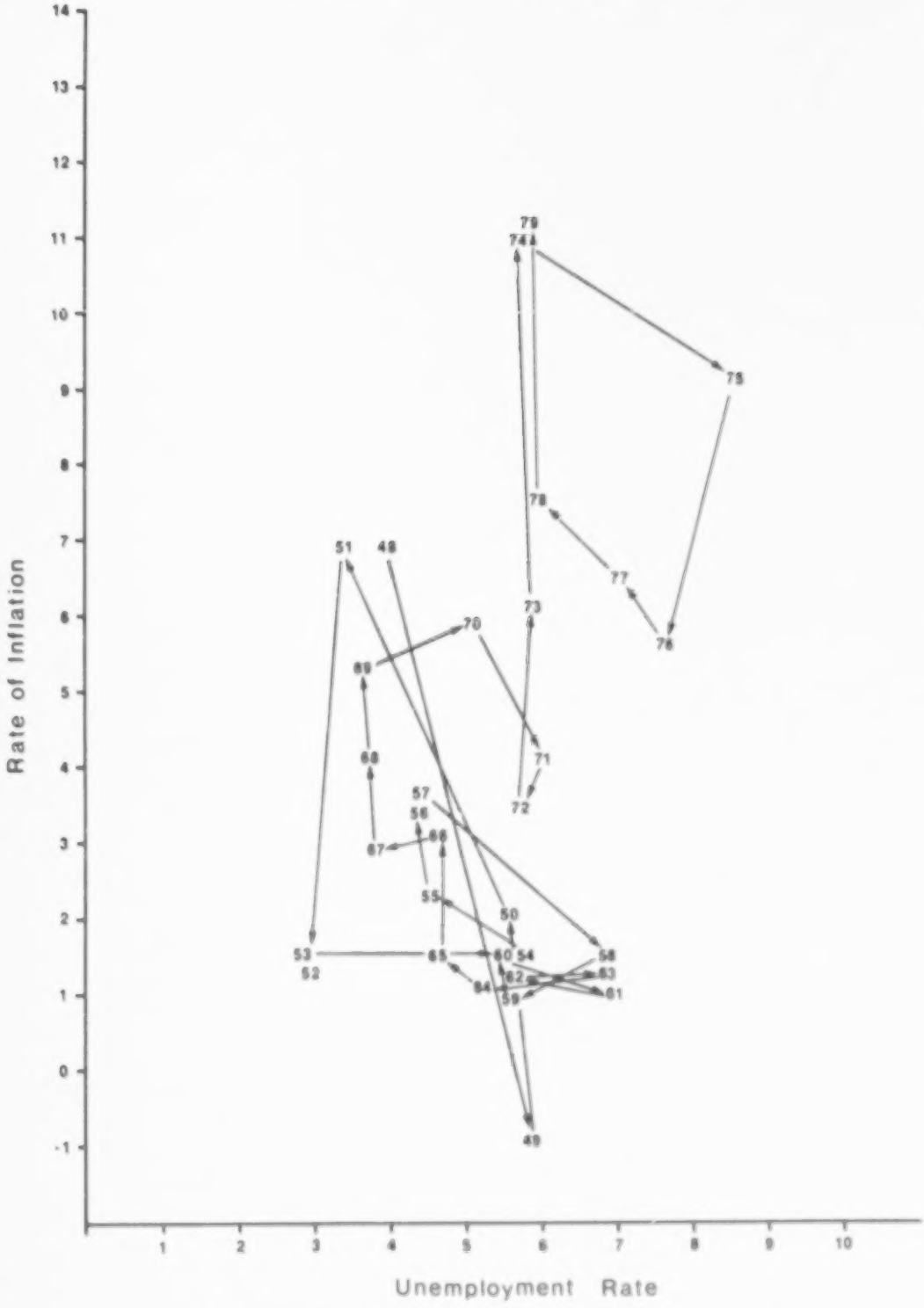
*As previously noted, the demand for money is the relationship between money balances desired and the dollar volume of transactions to be supported. Changes in money demand are detected by changes in money velocity (the ratio of GNP to the money stock).

Figure 6

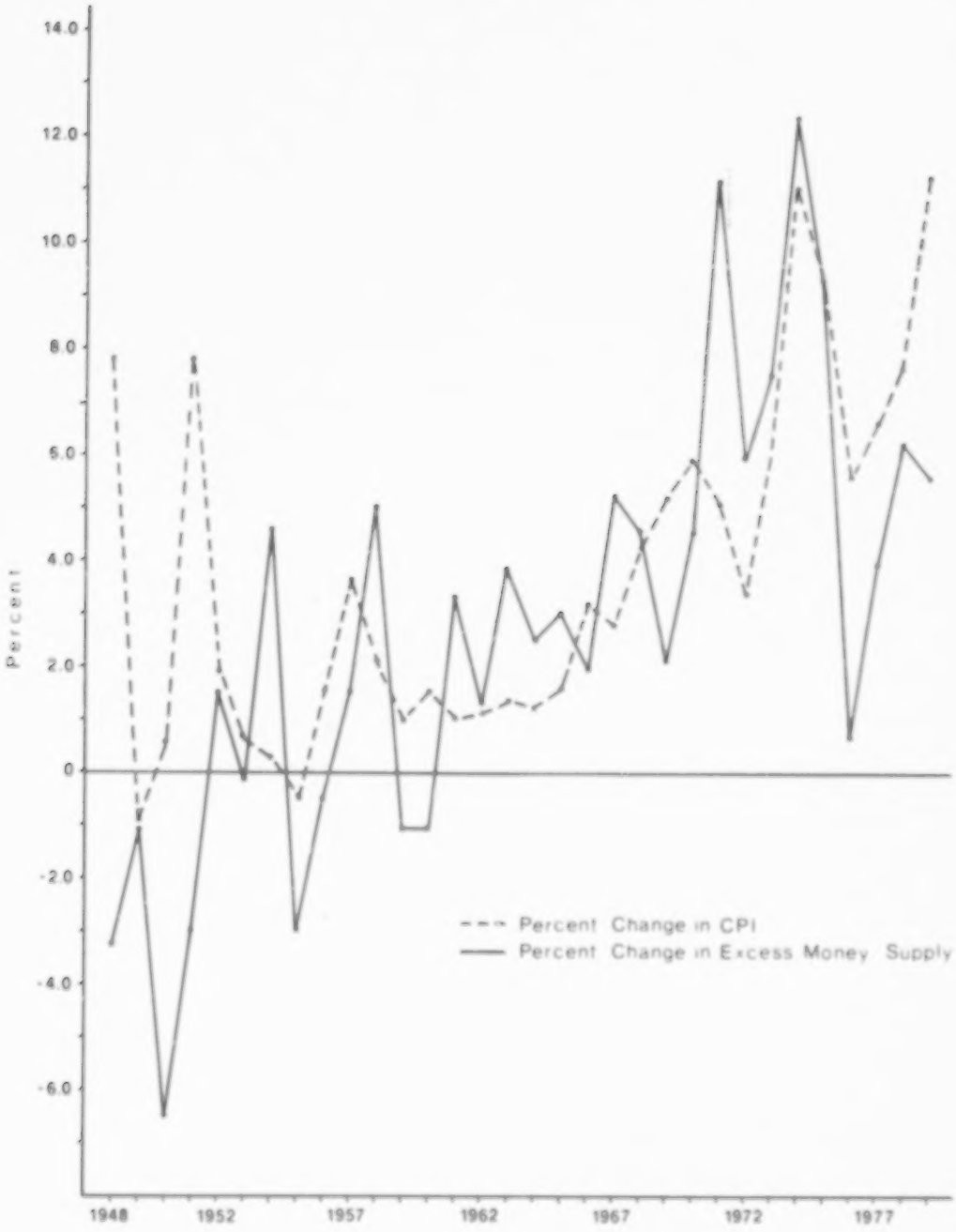
The Phillips Curve



Source: U.S. Dept. of Labor, Bureau of Labor Statistics

Figure 7

Growth in Excess Money Supply and the CPI



Source: U.S. Dept. of Commerce, Bureau of Economic Analysis
and U.S. Dept. of Labor, Bureau of Labor Statistics

Figure 8

Source: Dept. of Commerce, *Business Conditions Digest*.

For a given technology and level of output, and excluding cyclic disturbances, the capital-to-labor ratio is principally determined by the relative prices of using capital and labor in productive processes. When the cost of using capital increases because of rising energy prices, in the short run the desired capital-to-labor ratio declines--the new balance is attained by generating new growth through additions to employment rather than the capital stock or by withdrawing the most energy inefficient portion of the capital stock from production. For an interim period, new investment will be directed toward increasing the productivity of energy rather than that of labor, and only after that task is accomplished will the primary focus of investment decisions be reoriented toward increasing the net capital stock and labor productivity.

There are two effects of this which would tend to increase price growth. First, an effective reduction in the capital stock tends to lower the capacity of the economy to produce, so that any rate of monetary expansion would have a greater impact on prices. Second, it tends to lower the profitability of business investment--which undercuts bond prices and increases interest rates. The latter effect puts pressure on monetary authorities to increase the rate of monetary expansion to preserve the value of bonds.

In the current period, one of the central difficulties in developing policies to deal with instability in prices is the fact that prices can rise more rapidly than would seem warranted from changes in the excess money supply for short periods of time due to declines in the demand for money. This phenomenon was clearly occurring during 1979 and into 1980 as seen in Figures 7 and 8. Typically, the decline in money demand, or the increase in the velocity of money, is due to increases in the opportunity cost of holding money balances. Such increases come primarily from rising interest rates and anticipation of continued or increased inflation and also must be increased with the uncertainty that follows from political pricing of petroleum. The transient price increases following a

decline in the demand for money are significant in their own right. But, because changes in the velocity of money cannot be readily monitored and the determinants are not routinely measured, their most important effect is in their self-reinforcing nature and the potential for triggering inappropriate or untimely policy. Further, unstable demand for money renders uncertain the outcome of actions finally taken.

While all of these sources have played directly in the current inflationary episode, the secondary effects caused by the interaction of high rates of inflation with a financial and fiscal system designed for a more stable environment have made an appropriate policy response exceedingly difficult to formulate. Probably the most important single element of the net response has been the inception of the New Monetary Policy (NMP)--where the Federal Reserve turned its emphasis from trying to control interest rates to the stabilization of monetary aggregates. The implications of the NMP can best be delineated in terms of its interaction effects with the important economic events in late 1979 and early 1980.

The most profound shock to the economic system in this time period has been the astronomical increase in petroleum prices. The recent increase in energy costs and progress toward passage of the Windfall Profits Tax, which drove home the nature of U.S. energy policy, has lowered the expected rate-of-return on new domestic investment and the existing capital stock; these increases have thus been central in the bond price catastrophe once the Federal Reserve cut price supports in October with the NMP. From October to March, bond holders in the United States sustained paper losses in excess of $400 billion as bond yields attained unprecedented heights. It is interesting to note that without the NMP, continuing upward pressure in interest rates would have been restrained by a huge surge of monetary creation and a spiraling increase in the equilibrium inflation rate. Even without this, the increase in petroleum prices has required greater monetary accommodation than would otherwise seem prudent and induced a further fall in the demand for money, which has temporarily increased pressures on all goods prices.

A second issue to emerge as the decade began has been the interaction of the income tax structure of the federal government with the general increase in prices. For most of 1979, real interest rates* were very low. This was compounded by the facts that: (1) interest costs of money are deductible for income tax purposes and, (2) incomes were increasing much more rapidly in nominal than real terms, so that taxes were increasing faster than purchasing power. Therefore, from the point of view of most borrowers real borrowing costs were negative. The implied high levels of credit demand required continuous injections of new reserves to suppress nominal interest rates. This inflated the money supply, leading to increased price expectations and further depressed real interest rates. Here again, the impact of the October 6 NMP was felt, as it loosened the direct linkage from the tax structure to inflation by making the monetary policy much less responsive to interest rate increases.

Another anti-inflationary influence introduced by the NMP is the fact that when the Federal Reserve responds more forcefully to growth in monetary aggregates than to interest rates, the cost of Treasury funds becomes a secondary consideration. Thus, the Treasury will tend to moderate its indirect borrowing from the Federal Reserve. This not only removes the inflationary impact of large federal deficits, but also provides powerful incentives to design balanced budgets, because at higher interest rates high borrowing costs tend to divert resources from alternative allocations in the budget program and because without monetary expansion, direct Treasury borrowing from the public tends to crowd out private borrowing. The results of this approach to monetary management can be observed in West Germany, which has run large budget deficits over recent years without monetary accommodation and without excessive instability in the average price level. The crowding out effect is evidently quite pronounced and a source of comment in the financial literature. Given the present concern for productivity and investment evidenced in Congress, it is quite likely that the NMP will eventually act as a dampening factor in the growth in federal government spending.

One of the more difficult adjustments that must be made to of the NMP will be in the present institutional arranagements in the financial sector. Most obviously, the

*The "real interest rate" is the nominal rate of interest less the expected rate of increase in prices.

artificial bifurcation of the capital markets has probably overstressed institutions specializing in housing finance. The cost of borrowing in the money markets and the unfavorable term structures of assets versus liabilities for lenders of mortgage funds have put tremendous pressure on Regulation Q rigidities as disintermediation has proceeded at unprecedented rates in some quarters.

While the turmoil that continues in the transition to the NMP has been traumatic under the environment and circumstances which made it imperative, the potential payoff will be well worth the cost. The NMP will reduce inflationary pressures from tax subsidies to borrowing and from federal deficits. Further, good evidence of more modest and less discretionary monetary growth will do much to stabilize the variation in the demand for money and make the results of monetary actions less disruptive. The intermediate term prospects for necessary innovative restructuring of major institutional segments of the financial system may arouse some public concern, but these changes are probably unavoidable. Such changes will result in a more flexible system that will moderate rather than amplify the effects of exogenous shocks from the energy or materials markets. Further, it will reduce the likelihood of crippling credit crunches that have been a major cause of disequilibrium in the real sector of the economy. The structural change underway will not be costless, but the costs are largely bills from the past.

At present, the transition is being accomplished without excessive disruption in the economy; however, as inflation is measured, it is generating higher inflation in the short and intermediate term. If the NMP persists, though, long-run expectations for inflation can be viewed as optimistic. There is no reason to conclude that we have reached a new plateau in inflation rates and can never return to a period of sustained stable prices. Indeed, the NMP is designed to remove the rigidities in the economy which gave validity to the higher plateau notion. Accordingly, even through the long term forecast by Chase incorporated in this report anticipates inflation only moderating to to 6 or 7% during the eighties, there is sufficient reason to believe a much lower rate can and will be attained within a much shorter period time.

THE NATIONAL ECONOMY: 1980-1989

The national economic forecast for the next ten years as set forth below is a modified version of the January, 1980 Standard Trend as described by Chase Econometrics. The forecast was produced by blending the state's official short-run (two-year) forecast of national activity with the Chase long-run forecast, making those necessary adjustments to construct a consistent forecast of the full range of variables normally projected by Chase. The forecast was further modified by economists of the Executive Office of the Governor to clear up minor inconsistencies among several price indices. For presentation purposes, measures of economic performance for the decade are discussed in terms of average compound annual rates of changes; also, it is convenient to separate the decade into five-year segments, 1980-84, and 1985-89, since significant differences are expected to exist between the two periods. Actual values for each indicator are given for 1979 and for 1989, and the average annual growth rates for the 1970-79 decade are provided as a basis for historic comparison. No cyclic patterns are advocated after 1981, as the forecasted trends attempt to capture the underlying evolution of major economic forces that will operate over the decade.

In some ways the expected annual average rates of change for important measures of business activity in the coming decade exhibit features characteristic of the seventies. For example, in the broadest measure of activity, real Gross National Product, annual growth is expected to average 2.85%; this is close to the 2.87% for 1970-79, but far below the 4.12% achieved in 1960-69 and the 3.91% rate achieved in 1950-59. As can be seen in Table 16, this means that real output in 1989 will be about 32% higher than the level for 1979. Since population will increase by only 8.1%, measured real per capita output will increase by some 22.5%, or 2.1% per year; for the decade of 1970-79 measured real per capita output expanded at 2.0% annual rate. This is slower by 25% than the 2.8% annual rate of growth enjoyed during the sixties. On the price side, the Personal Consumption Deflator (PCD), on average is expected to increase by about 7.1% per year during the next ten years, as compared to the 6.3% for the last ten. Importantly, the pattern for the

eighties is expected to be a reverse image of the seventies, with rates of increase decreasing as the decade progresses. The price trend is in stark contrast to the trend of the 1950-59 and 1960-69 period, when the average PCD rates of change were 2.4% and 2.3%, respectively.

TABLE 16
NATIONAL ECONOMIC FORECAST

	1979 Actual	Annual Average Growth Rates 70-79	80-84	85-89	1989 Forecast
Real GNP (72$)	1431.8	2.87	2.72	2.98	1896.7
Population (millions)	220.6	.85	.78	.79	238.5
Index of Industrial Production	153.2	3.27	3.68	3.46	217.5
Real Disposable Personal Income (72$)	992.7	3.36	1.91	3.35	1286.7
Real Personal Consumption (72$)	924.5	3.50	2.19	3.35	1214.5
Real Investment Spending (72$)	214.8	2.49	2.79	3.20	288.6
Price Measures:					
CPI	217.4	7.07	9.23	6.54	464.1
CPI Component, Gasoline	266.5	9.79	22.48	7.99	1078.7*
WPI	234.5	8.21	8.54	6.38	481.1
Personal Consumption Deflator	163.5	6.34	8.27	6.04	326.1
Consumer Durables	144.7	4.51	5.45	4.29	232.8
Consumer Nondurables	171.4	6.73	8.58	5.81	343.1
Services	163.3	6.61	8.98	6.91	350.6
Deflator for Business Investment	179.9	7.55	8.83	7.44	393.2

*Implied price of gasoline for 1989: $3.80 per gallon. In 1979 dollars, this is equivalent to about $1.70 per gallon.

Source: Chase Econometrics Associates, Inc., January, 1980 Standard Trend Long Run Forecast.

Many features of the eighties will not mirror the seventies. As previously mentioned, the trend in price increases should show some signs of abatement, rather than the acceleration which prevailed in the seventies. In particular, during the first half of the decade the nation will likely follow a course which will increase the price elasticity for petroleum imports--this should provide some insulation from the shock of sudden production cutbacks by OPEC. Further, it is unlikely that the lessons of the two instances of very rapid inflation which were spawned in the seventies will be entirely lost in the coming years. It should be possible to sustain the monetary discipline necessary to slow the increases in the average level of prices from the 18% rate achieved in the first few months of the decade to a 5-7% range by the end of the decade. With respect to specific commodity groups, energy prices will continue to supply the greatest pressure--during the first half of the decade, for instance, the price of gasoline is expected to increase at a 22.5% annual rate. This should slacken to an 8% annual rate by the 1985-89 time frame as substitutes to OPEC production and advances in consumption technology improve the price elasticity of demand for imports. Over the entire decade, nominal gasoline prices are expected to increase at a more modest 6.6% per year faster than all goods taken together. This implies that by 1989, gasoline will cost $3.80 per gallon--equivalent in 1979 dollars to about $1.70 per gallon. Since this is far less than experienced by many nations presently, and since it is resonable to expect that the efficiency of petroleum consumption can be increased on the same order as prices are expected to increase by

1989, then the impact of increasing oil prices will not be economically debilitating. It should be noted, however, that the massive investment made to cope with the unnecessarily early onset in petroleum scarcity will postpone or foreclose many alternatives for improving the real standard of living for the non-OPEC world.

The 1980-89 decade is forecast to hold only modest improvement in overall industrial output relative to the performance of the seventies. For the entire decade, output is expected to increase on average by about 3.6% per year, which is a bit better than the 3.3% rate of growth for 1970-79, but a lot worse than the average annual increase of 5.4% during the twenty years from 1950 to 1969.

The composition of aggregate demand is expected to remain virtually unchanged over the entire decade--consumption will account for about 65% of output, gross investment expenditures will be about 15%, government purchases will take nearly 20% and net exports will be a little less than 1% of Gross National Product. Looking strictly in terms of government purchases and assuming no war in the coming years, the share of government will actually be declining during the next decade; the relative growth in government that does occur will be in the area of income redistribution as transfer payments, which have grown from 7.1% of GNP in 1969 to 10.7% in 1979, and will grow to 11.1% of GNP in 1989.*

TABLE 17
NATIONAL EMPLOYMENT TRENDS

Category	1979 Actual Category of Employment	1979 Actual Percent of Total	Average Annual Growth Rates (%) 70-79	80-84	85-89	1989 Forecast Category of Employment	1989 Forecast Percent of Total
Total	89.49	100.00	2.43	1.63	1.88	106.49	100.00
Construction	4.63	5.17	2.63	2.07	2.34	5.76	5.41
Manufacturing and Mining	21.96	24.54	.55	.89	.25	23.25	21.83
Regulated Industries	10.10	11.29	2.42	.89	1.60	11.43	10.73
Services	17.05	19.05	4.32	2.44	2.99	22.28	20.92
Trade	20.15	22.52	3.20	2.09	2.97	25.87	24.29
Government	15.60	17.43	2.50	1.49	1.28	17.90	16.81

Source: Chase Econometrics Associates, Inc., January, 1980 Standard Trend Long-Run Forecast.

As the population matures, the economy will absorb relatively fewer youthful labor force entrants--further, it seems unlikely that there is a large measure of additional labor force growth to come from second earner households. Because of this, labor force growth rates are expected to decrease by a third to a 1.63% annual rate during the 1980-84 period before rebounding to a 1.88% growth path in the last half of the decade. Probably the most significant trend in the labor markets will be the increasing representation of services and trade and the decline in the fraction of all employment due to Manufacturing: By mid-decade, Manufacturing will no longer be the largest non-agricultural industry group in terms of total employment; this is the first time since 1840 that this has been true. During the decade of 1980-89, the relative share of Manufacturing in total

*Enlargements of the retired population will insure increasing rates of growth in transfer payments so that under current program structures, they should involved 13.6% of GNP by the turn of the century.

employment is expected to decline by 11%, while Services' share will increase by almost 10% and Trade will increase by nearly 8%. The fraction of all employment originating in Construction will show a modest positive shift of 4.6%, while regulated industries and government will suffer declines of 5% and 3.5%, respectively. If this forecast is realized, one of the key issues emerging from the 1980-89 decade will be the search for ways to measure and enhance productivity in Services and Trade industry groups. Since, at least as the output of these industries has traditionally been measured, Services and Trade have not shown a great ability to incorporate capital intensive methods of economies of scale, increasing Services and Trade representation in total employment will mean lower rates of growth in productivity in the overall economy. These lower growth rates will to some extent be offset by the aging of the labor force and by the equilibrium of desired and actual capital to labor ratios as the adjustments to higher energy prices are achieved.

FLORIDA'S PROSPECTS: 1980-1989

As the decade of the eighties proceeds, business activity in Florida will continue to depend on new household formation and the demand for its exports, including amenity resources. In developing the forecast for Florida, several basic issues had to be resolved which directly affect these fundamental sources of growth. In particular, careful assessments were made of: (1) the potential for exhausting the state's amenity resources through congestion in the coastal plains; (2) the viability of tourism as a component of Florida's economy under the anticipated energy scenario; (3) the potential for continuing current trends in labor force participation and composition; (4) effects on spending patterns of accelerated shifts in the demographic composition of the state due to rapid in-migration. Table 18 presents a summary of the major indicators of progress anticipated for 1980-89 in a format similar to that of Table 16. For 1979 and 1989, the actual or forecast values of each indicator are given; then, the 1980-89 decade is segmented into the two periods, 1980-84 and 1985-89, and average annual compound growth rates are presented for these years. For comparison purposes, the ten-year average compound growth rate for 1970-79 is also given for each major variable.

POPULATION

It is quite clear from the summary that many of the prospects for Florida seem quite positive. Overall population growth will be strong, especially in relation to national trends. High mortgage rates and sluggish economic performance in the first half of the decade will depress the population growth rate to 2.73% or 3.4 times the national rate. This is somewhat below the multiple of 4.1 experienced during 1970-79; however, the rate of growth is expected to recover to 3.7 times the national rate in the last half of the decade. The projected 2.8% average annual growth rate for the next decade reflects an overall assessment that Florida's economy is maturing and its amenity resources are becoming more scarce when compared to the 3.3% growth experienced in the seventies, the 3.5% in the sixties, and the phenomenal 6.0% rate in the fifties. Nevertheless, after four decades of sustained population growth, average population density will only increase to 225.8 persons per square mile by 1989. This means that by 1989, Florida's average population density will still be far less than the 260 people per square mile living in a state like Ohio in 1977. Further, the 225.8 people per square mile is less than a third the density of Florida counties like Broward, Dade or Duval, and less than the present density of Brevard, Lee, Palm Beach, or Volusia. It is not likely that the increased density will act as a severe inhibition to continued population in-migration since, for instance, even if all of the 2.9 million increase in population were to occur in Palm Beach County alone, its population density would increase to about 1700 people per square mile--1000 less people per square mile than the current density for Pinellas County.

The proportion of elderly residents will continue to increase at a 3.6% average annual rate from 17.7% to 19.1%. At the same time, however, the percent of persons of prime working age (18-44 years) will grow at a rate of 3.3%, increasing from 36.3 to 38.0% of the population. Average household size will decline even further from 2.56 to 2.09 persons per household contributing to the 5.0% average growth rate of households from 3.6 million to 5.8 million.

TABLE 18
FLORIDA FORECAST SUMMARY

Category	Actual 1979	Average Annual Growth Rates (%) 70-79	80-84	85-89	Forecast 1989
Population (thousands)	9,266.1	3.34	2.69	2.92	12,215.0
Tourism (thousands)	33,198.0	6.58	2.15	5.59	48,474.8
Auto (thousands)	20,867.7	4.53	.16	6.65	29,026.5
Air (thousands)	12,330.3	11.50	5.20	4.13	19,448.3
Real Per Capita Personal Income (72$)	4.929.8	2.45	.68	2.93	5,894.3
Total Employees (thousands)	3,269.8	4.68	2.87	4.92	4,789.1
Housing Starts (thousands)	195.3	3.87	3.23	5.89	304.8
New Car Registrations (thousands)	521.6	3.35	.43	8.23	791.2
Real Taxable Sales (millions of 72$)	32,717.1	5.47	3.38	5.24	50,245.9

Source: Florida Econometric Model, Executive Office of the Governor, based on Chase Econometrics Associates, Inc., January 1980, Standard Trend Forecast.

TABLE 19
FLORIDA POPULATION TRENDS: 1970-89

Category	1979 Actual Category Total	Percent of Total[1]	Average Annual Growth Rates (%) 70-79	80-84	85-89	1989 Forecast Category Total[1]	Percent of Total
Total Population[2]	9,245.3	100.0	3.49	2.73	2.92	12,215.0	100.0
Ages 0-17	2,329.8	25.2	.16	1.66	2.14	2,812.3	23.0
Ages 18-44	3,356.1	36.3	4.24	3.42	3.13	4,642.1	38.0
Ages 45-64	1,923.0	20.8	3.41	1.91	2.69	2,423.3	19.8
Ages 65 and older	1,636.4	17.7	5.90	3.49	3.71	2,337.3	19.1
Households[2]	3,616.8	NA	5.63	4.36	4.93	5,848.6	NA
Average Household Size	2.56	NA	(1.42)	(2.04)	(1.90)	2.09	NA
Persons/Square Mile	170.9	NA	3.48	2.74	2.91	225.8	NA

[1] Fractions may not add due to rounding.
[2] Thousands of persons or households.
Source: Florida Econometric Model, Executive Office of the Governor, based on Chase Econometrics Associates, Inc., Standard Trend Forecast, January, 1980. 1979 figures are based on the official population estimate for April 1, 1979.

TOURISM

While tourism is not expected to grow as rapidly in the coming decade as it did during the 1970-79 decade, it will continue to be an important source of income and employment in Florida. As indicated in Table 18, Florida will welcome 15.3 million more visitors in 1989 than it did in 1979, resulting in an average annual rate of growth of 3.9% for the 1980-89 decade (versus the 6.6% growth for 1970-79).

Most of the slowdown in tourism for the decade is accounted for in the first half of the decade, when the extraordinary increases in gasoline prices retarded growth of tourists' arrivals by automobile. Table 18 clearly shows this effect as auto tourism increases on average by only 0.16% per year during the 1980-84 period. Air tourist arrivals are also slowed as the price of air travel increases and the value of the dollar is stabilized on international markets. The overall effect is a tourist growth forecast of only 2.2% per year in the first half of the coming decade; the fraction of tourists arriving by automobile will dip from 62.9% in 1979 to about 56.5% by 1983. As the efficiency of the auto stock improves and prices and supplies of motor fuel become less volatile in the second half of the decade, auto tourism can be expected to recover much of its lost ground. In the 1985-89 time period, auto tourism is projected to grow at an annual rate of almost 6.7%, so that by 1989, auto tourism will likely account for the arrival of 59.9% of all out-of-state tourists in Florida.

It should be noted that in preparation of this forecast, historically developed statistical relationships indicated that the desired level of tourism in Florida was somewhat higher than the numbers actually presented, especially in the second half of the decade. The final forecast was conditioned by an assumption that growth of tourism would be partly inhibited by saturation of existing and likely new tourist facilities.

EMPLOYMENT

The strong growth in population, the continued viability of tourism, and the relatively modern capital stock of Florida's manufacturing sector will assure a robust employment picture in the state for the coming decade. In terms of non-farm employment totals, just as population growth will slow over the forecast period, the ten-year average of employment growth will decline from 4.68% per year during 1970-79 to 3.89% per year for 1980-89. However, all of the slowdown in growth will be in the first half of the period as indicated in Table 20, since in 1985-89, employment is anticipated to grow at an average rate of 4.92% per year (over 2.6 times the national growth rate). Since population is expected to grow at an average of 2.8% per year for the decade, the fraction of the population employed will increase in Florida from 35% in 1979 to 39% by 1989. By the end of the coming decade, the fraction of Florida's population working as employees will approach the 1979 national fraction of 41%.

Of the 1.25 million new workers to be absorbed by the private sector, the services industry group will account for 420,000 new jobs--a 59% increase in employment in service category jobs in Florida. Since the service sector is in large part health-related in Florida (in 1979, over 26% of all service jobs were in health services), growth in services is, in large, a result of the accelerated shifts in the age cohort composition of the state's population from rapid in-migration. Services growth also reflects the growth of tourism (11% of all service sector jobs were in lodging places) and the national trend toward a more service-oriented economy.

The second largest source of new employment in Florida over the next ten years will be the state's largest industry group--Wholesale and Retail Trade. The Trade sector will continue to provide over 25% of all employment opportunities to Florida residents as it will create over 400 thousand jobs in the eighties. In 1979, 57% of all employment in wholesale trade was related to durable goods and over 19% of retail trade employment directly depended on housing construction or improvement, so that growth in the Trade Sector will be strongly related to high rates of household formation. Also, increased recreational activity (for instance, about 30% of all 1979 retail trade employment was in eating and drinking establishments) will further boost Trade employment.

TABLE 20
FLORIDA EMPLOYMENT BY INDUSTRY

Category	1979 Actual Category of Employment[1]	1979 Actual Percent of Total[2]	Average Annual Growth Rates (%) 70-79	80-84	85-89	1989 Forecast Category of Employment[1]	1989 Forecast Percent of Total[2]
Total Non-Farm	3,269.8	100.0	4.68	2.87	4.92	4,789.1	100.0
Private Non-farm	2,660.9	81.4	4.63	2.97	4.88	3,909.1	81.6
Construction	227.0	6.9	2.98	.30	4.27	284.0	5.9
Manufacturing and Mining	458.6	14.0	3.13	3.48	3.12	634.5	13.2
Transportation, Communication, and Public Utilities	206.0	6.3	3.54	1.63	3.17	261.0	5.4
Services	710.8	21.7	6.02	3.76	5.76	1,130.8	23.6
Trade	830.8	25.4	4.77	2.83	5.34	1,238.7	25.9
Finance, Insurance, and Real Estate	237.4	7.3	6.80	3.68	5.52	372.0	7.8
Government	608.8	18.6	4.88	2.43	5.09	880.0	18.4

[1]Thousands of employees.
[2]Fractions may not add due to rounding.

Source: Florida Econometric Model, Executive Office of the Governor, based on Chase Econometrics Associates, Inc., Standard Trend Forecast of January, 1980.

Florida's manufacturing sector is expected to add over 175,000 new jobs during the next decade, an increase of 38%. The decade average rate of growth in manufacturing employment of 3.3% per year will exceed the rates experienced in 1970-79, especially in 1980-84, when manufacturing employment will grow more rapidly than total private non-farm employment in Florida. The gain in manufacturing employment expected in this time period is especially impressive when compared with the anemic growth in the U.S. manufacturing sector. In particular, the manufacturing sector in Florida will expand employment at five times the national rate. The high relative growth rate for Florida's manufacturing sector is due in some measure to the fact that the capital stock of firms in the state is newer and concentrated in newly developing and high technology markets such as semi-conductors and aerospace equipment. Even with this absolute expansion, however, Florida's manufacturing sector will show an actual decline in its proportional representation in the state's total employment picture since manufacturing labor productivity is likely to increase quite rapidly relative to the demand for output.

Next to Services, the Finance, Insurance and Real Estate sector will sustain the strongest growth rate in employment in Florida's economy--adding 135,000 jobs (up 57%) by 1989. Growth in this sector is especially gratifying and has been heavily promoted by the Administration since it is an environmentally safe industry which will not impinge on

the amenity resources so easily spoiled by other types of development. Besides the extensive recruitment efforts, high rates of growth in the Finance, Insurance and Real Estate Industry group can be attributed to the rapid growth in Florida's population, the attendant high level of construction activity, and the favorable business climate for increasing Florida's importance as a financial center for international trade with Latin America.

Contract Construction and Transportation, Communications, and Public Utilities will each add about 55,000 new jobs in Florida in 1980-89. For the Construction sector, the ten-year average annual growth rate in employment is only 2.3%, well below the 1970-1979 performance. This reflects to some extent the fact that the forecast starts from a fairly high point, but it also reveals a basic weakness in all types of construction activity due to the extremely high price of long-term financing expected early in the decade. Construction employment is expected to be very robust in the 1985-89 time period as the cost of financing declines and the industry attempts to satisfy the pent-up demand for new housing. The Transportation, Communications, and Public Utilities (or Regulated Industries) sector also will experience a decline in its relative share of employment as its overall annual average growth will be a bit less than 2.4%, compared to the 3.9% rate for total employment. This relative decline should be expected given the nature of investment in the early eighties; in the transportation and electric services segments especially, it is likely that new investments will be made more to replace inefficient stocks rather than add new capacity margins.

Federal, state and local governments are expected to add over 270,000 new positions in Florida in 1980-89. This implies a rate of growth of 3.8%, slightly less than growth for total employment. In absolute terms, most of the growth will probably come at the local level of government since this level currently employs about 66% of all public employees. At the state level, government functions are well-defined and circumscribed by Florida's Constitution; furthermore, it is the Administration's policy to strictly constrain growth in employment in the state government. Thus, state government employment will probably be a small gainer in the 1980-89 decade. Federal government employment should be the most rapidly growing portion of the government sector. Specifically, the resurgence of NASA as the Space Shuttle program builds up and increased defense spending should both generate a strong response in government employment in Florida.

INCOME AND INCOME SHARES

Between 1979 and 1989, personal income in Florida will increase by a factor of three--half of this increase will be due strictly to an increase in prices, and half is due to real increases in spending power in Florida. Thus, the ability of Florida's citizens to command goods and services is expected to increase on average by over 4.6% each year through the decade. The rise in incomes will be due to several factors. First, and easiest to understand, is the increase in population--this accounts for 2.8% of the average rate of increase so that per capita real income will increase by 1.8% each year. Since the increase in real per capita income is a proximate indicator of the trend in the average standard of living, an examination of the sources of this growth is useful.

Table 21 presents a detailed forecast of income components. A glance reveals several interesting patterns that will be occurring in relative contributions of the components. First, from the figures on Wages and Salaries, it appears that the share of income received by labor will significantly decline. This trend is illusory as can be seen by adding "Wages and Salaries" to "Other Labor Income" (which includes such things as fringes, tips, and employer contributions to pension funds) in each year; doing this exposes the fact that in 1979, 61.07% of personal income went to labor, while in 1989, 61.08% is expected to be derived from labor. It is probably fair to conclude that this phenomenon is a continuation of the recent trend toward moderated raises in taxable pay components and higher raises in untaxed fringes.* While per capita real income in Florida is increasing at

*This trend would be invalidated if the movement in the U.S. Congress to cap "tax expenditures" is ever manifested in law. A "tax expenditure" is income which escapes taxation because of specific legal provisions, such as interest deductions on home mortgages or employer contributions to pension funds.

TABLE 21
FLORIDA INCOME BY COMPONENT

Category	1979 Actual Dollar Amount (Millions)	1979 Actual Percent of Total	Average Annual Growth Rates (%) 70-79	80-84	85-89	1989 Forecast Dollar Amount (Millions)	1989 Forecast Percent of Total
Total Personal Income	74,688	100.00	12.59	11.94	12.34	234,847	100.00
Wages and Salaries	41,641	55.75	11.40	11.05	11.83	123,035	52.39
Construction	2,979	3.99	9.05	7.12	11.59	7,272	3.10
Manufacturing and Mining	6,169	8.26	10.07	13.01	10.81	18,998	8.09
Transportation, Communication and Public Utilities	3,668	4.91	12.31	10.37	10.20	9,763	4.16
Services	8,544	11.44	13.58	13.04	13.13	29,229	12.45
Trade	8,249	11.04	11.38	11.04	12.89	25,534	10.87
Finance, Insurance, Real Estate	2,928	3.92	13.20	9.84	11.72	8,147	3.47
Government	8,576	11.48	10.92	9.39	10.69	22,320	9.50
Farm	529	.71	10.67	12.16	13.53	1,771	.75
Other Labor Income	3,973	5.32	18.59	18.07	17.48	20,405	8.69
Proprietor's Income	4,507	6.03	8.07	11.89	16.30	16,819	7.16
Property Income	14,414	19.30	13.63	11.03	10.86	40,736	17.35
Transfer Payments	12,769	17.10	17.26	13.53	11.60	41,685	17.75
Unemployment Compensation	96	.13	16.41	12.24	(6.38)	123	.05
Social Security Payments	6,052	8.10	17.67	13.64	12.31	20,494	8.73
Other	6,620	8.86	16.91	13.44	11.12	21,068	8.97

Note: Categories may not add since contributions to social security and residence adjustments are not shown.

Source: Florida Econometric Model, Executive Office of the Governor, based on Chase Econometrics Associates, Inc., Standard Trend Forecast of January, 1980.

a fairly respectable rate of 1.8% per year, the return to working will not grow to the same extent. Even neglecting the effect of "bracket creep" on disposable income, gross real payments including fringes but less social security contributions per non-farm employee will increase at an average annual rate of less than 0.8% in the 1980-89 decade.

Relatively strong growth will occur in transfer payments and proprietor's income--each of which should increase in relative share of total personal income. Florida's net benefits from the social security program will continue to increase so that by 1989 retired residents of the state will receive $2.63 (up from $2.35 in 1979) for each dollar contributed by those citizens who continue to work. This reflects, of course, the maturity of Florida's population relative to the U.S. as a whole. The rapid rate of growth in proprietor's income reflects a number of factors that will characterize Florida's economy in the eighties. Clearly, the chief consideration is that in Florida total consumer expenditures are expected to be quite strong when compared to the increase in employee compensation. This is due both to the secular decline in the saving rate and to the strong growth in labor supply in Florida. The former will boost consumption per capita for any level of income, while the latter will serve in part to stabilize wage growth--particularly in the Trade and Services sectors where many businesses are operated by proprietors. The high consumption expenditure rates are also related to the ability of the state to import paychecks from its tourist "population" and from transfer payments.

RETAIL SALES

In the previous section, the anticipated increase in real per capita income was posited as a rough indicator of modestly rising welfare for Florida's residents in the 1980-1989 time period. A somewhat better measure of changes in citizen welfare would be a comprehensive accounting of the change in consumption of all goods traded in free markets. While this information is not available, a large number of goods are purchased and taxed under the state's sales tax. As such, careful records of the volume of sales of these goods are kept. In reasonably stable lines, the volume of taxable sales holds a fairly fixed relationship with the consumption of all goods, so that an analysis of the forecasted changes in taxable sales can provide some insight into the benefits that will be derived from the growth in business activity in Florida.

On this basis, over the next ten years Florida's merchants and consumers can expect to enjoy an increase in annual sales of over 200%, representing a nominal annualized average rate of growth of 11.8% (see Table 22). Removing the effects of rising prices, real sales volume will thus increase by almost 53%. The strongest nominal growth category will be in building investment goods, which will increase on average by 12.3% per year. Business investment is expected to grow somewhat more slowly at an average rate of 10.7% per year; this reflects the composition of industrial development forecast to occur over the decade.

The high rate of household formation and declining relative prices of consumer durables imply that non-automotive consumer durable expenditures will also increase at an annual rate in excess of 12.3% during 1980-89. Because of the low rate of increase in prices of this category of consumer durables, real volume will be increasing quite rapidly. Auto-related consumer durable expenditures have a somewhat slower rate of growth (11.4% per year), with the 1980-84 period being especially weak. While auto-related durables will show a rebound in the second half of the decade, they will lose somewhat in the share of total expenditures.

Expenditures on consumer nondurables comprise the largest category of taxable sales in Florida. Over the next decade this category will grow in importance in nominal terms as the average annual growth will be 12.1%. However, since nondurable prices are likely to rise somewhat more rapidly than prices for other goods, they will not make substantial progress in their real volume share.

There are several factors which distort the quality of information gleaned from evaluation of the consumption patterns noted above as measures of changes in material well-being of Florida residents. Probably the most important problem is that even though the relationship between taxable and gross consumption exists, it is least stable when the economic system is under severe stress--such as oil shortages, price controls, major strikes, or high unemployment. In such times there may occur major shifts in spending patterns as consumers devote larger portions of income to the non-taxed price and income

inelastic "necessities" such as food, fuel and shelter. In this case, use of taxable sales as an index would overestimate the welfare loss of individuals. Since this forecast mainly considers fundamental secular trends, a distortion of this nature does not appear to be too confining on interpretation of the results. A second distortion in the taxable sales data comes from likely shifts in relative prices over the next decade. This effect can be accounted for by using appropriate deflator components to produce constant dollar or "real" sales volumes. A third potential problem of using consumption data to indicate changes in material well-being in Florida is the fact that tourists consume a substantial portion of certain classes of goods sold. Because of this, an adjustment must be made to per capita consumption data for consumer nondurables and recreation related nondurables to reflect the tourist population.

TABLE 22
FLORIDA TAXABLE SALES FORECAST

Category	1979 Actual Amount (Billions of $)	1979 Actual Percent of Total	Average Annual Growth Rates of Sales by Category (Nominal $) 70-79	80-84	85-89	1989 Forecast Amount (Billion of $)	1989 Forecast Percent of Total
Total Taxable Sales	54.1	100.00	12.50	11.31	12.28	165.0	100.00
Consumer Nondurables	15.6	28.74	10.92	11.97	12.58	49.0	30.00
Recreation-related Nondurables	10.0	18.44	12.54	12.04	11.88	30.9	18.72
Consumer durables Autotmobile-related	9.6	17.76	12.74	10.58	12.22	28.3	17.13
Consumer Durables Other	3.5	6.47	11.54	11.55	13.15	11.2	6.79
Farm Investment	.3	.54	9.54	9.31	11.25	.8	.47
Business Investment	9.8	18.14	16.01	10.51	10.85	27.1	16.41
Building Investment	5.4	9.91	12.50	10.71	14.13	17.3	10.47

Source: Florida Econometric Model, Executive Office of the Governor, based on Chase Econometrics Associates, Inc., January, 1980, Standard Trend Forecast.

After accounting for annual price increases averaging 4.9%, it is consistent with the long-run forecast that Florida consumers will be able to increase real purchases of consumer durables at a rate of 3.6% per year per capita. For consumer nondurables (including recreation related nondurables such as restaurant meals and admissions), with adjustments for tourist consumers and price increases averaging 7.2% per year, real per capita consumption is expected to grow by 1.6% per year over the decade. These results compare to 4% per capita real growth for consumer durables and 0.8% per capita growth for consumer nondurables per year in 1970-79, during which annual price increases averaged 4.51% and 6.73%, respectively. It should be recalled, in light of the previous comments on potential distortions in the information conveyed by the data, that the 1970-79 decade contained an extremely severe cyclic contraction and two episodes involving disruption of oil supplies.

STATE TAX REVENUES

A recurring question regarding Florida's tax structure is whether or not it is adequate to sufficiently fund existing program commitments without periodic rate increases, or conversely, has the state over-committed to funding programs that its tax structure cannot support? The answer to this question is essential to orderly planning and budgeting; therefore, it is necessary to examine the long-term outlook for revenues and the anticipated costs of current and potential programs funded by the state, given the forecast for business activity in the coming decade. Since planned expenditures must be less than or equal to available revenues over the course of a fiscal period, we must assess the future costs of committed and anticipated programs relative to revenue expectations. In this section the outlook for future revenues and expenditures is examined, and the implications of the results for future policy are discussed.

THE LONG-TERM REVENUE PROJECTIONS

Given the long-term national and Florida economic scenarios presented above, revenue projections are determined by the Florida econometric model developed and maintained by the Revenue and Economic Analysis Unit in the Office of the Governor. The forecasts are for the most part limited to General Revenue tax sources, since these sources are subject to interprogram allocative decisions. The projections are presented in Tables 23 and 24, which show the revenue projections and growth rates for major General Revenue tax sources on a fiscal year basis.

Total Net Recurring Revenue shows strong growth through the decade, beginning in 1980-81 with an 8.5% increase, and continuing on through with an 11.1% increase in 1988-89. The average annual growth rate in nominal terms is expected to be about 10.1%, which on the surface seems fairly strong. However, through that same time period, inflation is expected to increase at an average of 8.2% per year, while population growth will average 2.8% annually. Consequently, when per capita revenues are adjusted for inflation, they actually show an average annual decline of about 0.5% during a period when real per capita income is increasing at an annual rate of 1.8%. This confirms the trend of 1970-79 when real per capita income increased at an average rate of 2.45% while per capita revenues increased on average by about 1.8%, even with tax rate increases that were implemented over the previous ten years. No rate changes are forecast during the next decade, which accounts for some part of the difference in relative growth rates.

An interesting comparison can be made in the growth rates of value-based taxes versus those of unit-based taxes. Of the sources listed in Table 23, Sales Tax, Corporate Income Tax, Documentary Stamp Tax, and Severence Tax are value-based taxes, while Beverage Tax, Cigarette Tax, and Motor Vehicle Licenses are unit-based taxes. Value-based taxes obviously do much better in keeping pace with inflation and population growth than do the unit-based taxes, which results in frequent adjustments in unit-based tax rates to reflect price changes. Otherwise, reliance on unit-based taxes leads to a tax structure that is insufficiently responsive to price changes and can cause funding problems during periods of sustained inflation.

THE LONG-TERM EXPENDITURES PROJECTIONS

In considering the long-term growth of appropriations and expenditures, the fact that in a large sense expenditures are tied very closely to expected revenues must be taken into account. That is, the amount of money appropriated depends a great deal on the amount of revenue that is forecast to be collected during a given fiscal year. Of course, should revenues be deemed to be too low to cover "necessary" expenditures, taxes can be increased, but in general, appropriations are tied to projected revenues. Nevertheless, there are certain economic and demographic determinants of the level and distribution of public goods and services. Accordingly, expenditure forecasts were developed independently of the revenue forecasts.

This forecast concentrates on expenditures from the General Revenue Fund since, in terms of the adequacy of the overall taxing structure, it is the most important. Because different factors determine the level of expenditures within different agencies, program

TABLE 23
PROJECTIONS OF RECURRING GENERAL REVENUE RECEIPTS,
AND FEDERAL REVENUE SHARING RECEIPTS
(Millions of Dollars)

	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
Sales Tax	2255	2502	2747	[illegible]	3446	3877	4342	4850	5422	6084
Corporate Income Tax	375	386	427	476	541	615	694	780	875	985
Beverage Tax	278	286	295	304	321	336	353	370	389	409
Documentary Stamp Tax	163	174	192	214	250	289	329	370	415	468
Severance Tax	88	117	118	113	88	67	66	65	66	68
Interest	104	96	93	94	91	91	94	98	105	111
Cigarette Tax	78	81	83	85	88	92	95	99	103	108
Motor Vehicle Licenses	65	68	70	72	76	78	81	84	88	93
Other Taxes, Licenses and Fees	329	350	362	378	401	426	449	475	501	527
TOTAL TAX RECEIPTS	3735	4060	4386	4796	5302	5871	6503	7191	7964	8853
Federal Revenue Sharing	70	70	71	72	73	74	75	76	77	78
Other Recurring Revenue	6	1	1	1	1	1	2	2	2	2
Less Refunds	(20)	(20)	(31)	(34)	(37)	(41)	(46)	(50)	(56)	(62)
TOTAL NET RECURRING REVENUE	3791	4111	4427	4835	5339	5905	6534	7219	7987	8871
Percent Change	—	8.4	7.7	9.2	10.4	10.6	10.7	10.5	10.6	11.1

NOTE: The revenue projections shown in this table are generated by the Florida Econometric Model developed and maintained by the Revenue and Economic Analysis Unit in the Office of the Governor. They are based on the Chase Econometric Associates, Inc., Long Term Trend Forecast for January, 1980.

expenditures are disaggregated along agency lines. Total Fixed Capital Outlay from General Revenue was considered independently. The agency General Revenue expenditures were divided into the following categories: Department of Education - FEFP, Department of Education - Other, Department of Health and Rehabilitative Services, and Other Agencies.

The expenditures projections shown in Table 25 are forecasts of the cost of maintaining the current level of service in these programs, with increases only for growth in prices, client populations, or number of employees. These forecasts provide a perspective to the current level of commitment to these programs over the long run, assuming that no major changes are made in the goals and objectives of those programs. They are a lower boundary on the growth path of funding for these programs. Realistically, expenditures can be expected to grow at a faster rate, if new and improved program commitments are enacted at the rate they have in the past. From 1969-70 to 1978-79, the real per capita increase in General Revenue appropriations averaged 1.66% annually. Should that growth rate continue throughout 1988-89, General Revenue appropriations would be $9.7 billion in 1988-89, as opposed to the cost of $8.3 billion of maintaining current real per capita expenditures.

The aging of Florida's population will have some discernable effects on the composition of expenditures over the next decade. The school-age population will become a smaller portion of the total population, with obvious results for expenditures on education. Total General Revenue recurring expenditures on education were 61% of total expenditures in 1979-80, while they will be 57% of total expenditures in 1988-89.

On the other hand, the aging of Florida's population will have an opposite effect on the budget of the Department of Health and Rehabilitative Services. Comprising 20% of General Revenue expenditures in 1978-79, by 1988-89, the HRS budget will account for 21% of all General Revenue appropriations. However, these numbers do not reflect likely policy changes which could divert a larger share of funds to HRS to lend increasing aid to a growing elderly population.

ADEQUACY ANALYSIS

Figure 9 shows the forecasts of revenues and expenditures out through 1988-89. There are two different forecasts for expenditures shown on the graph. The baseline expenditures shows the expenditure levels forecast in Table 25 and is considered a lower boundary on expenditure growth. The upper boundary on expenditures shows what expenditures will be if they continue to show the historical growth rate in real per capita expenditures of 1.66%.

The comparison of revenues and expenditures depicts a revenue "shortfall" for the period beginning 1981-82 through 1985-86, at which time revenue growth recovers to a level exceeding the base-line expenditure projections but remains below the upper boundary expenditure projections. In part, the revenue shortfall develops due to the differing responses of revenues and expenditures to inflation. Program funding is more elastic with respect to increases in prices in order to maintain service levels. Revenue sources, on the other hand, are less elastic with respect to increases in prices, reflecting the large representation of unit-based sources in the tax structure.

Also contributing to the projected "shortfall" is the effect of the business activity slowdown and weak recovery assumed in the underlying economic scenario. The economic outlook is discussed in detail above, but fundamentally embodies a mild national recession during 1980 with a sluggish post-recession recovery highlighted by persistent inflation. As with inflation, economic slowdowns have the opposite effect on program funding needs. This is most evident for such programs as unemployment compensation and human services whose clients are functionally related to the overall economic conditions.

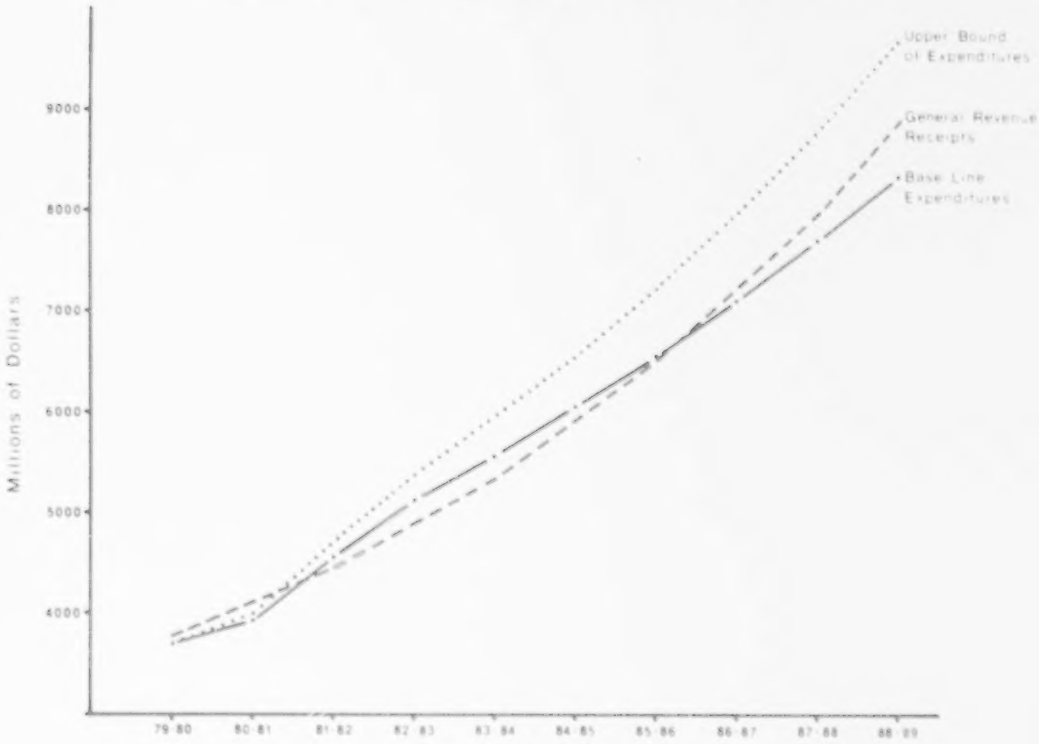
Typically, the state budgeting process would have three alternatives to address the shortfall period: First, program funding could be restricted to levels consistent with the revenue projection. This approach could potentially (but not necessarily) lead to unacceptable levels of public service delivery. Alternatively, it clearly provides the opportunity for closer program budget scrutiny to purge or phase out less productive programs.

Secondly, rate adjustments to physical unit-based taxes could be enacted. As inflation persists, unit-based tax rates must be periodically increased to ensure the tax

burden remains fairly distributed between value-based and unit-based sources.

Figure 9

Projections of General Revenue Receipts and Expenditures



Source: Executive Office of the Governor, Revenue and Economic Analysis

Finally, the reserve funds, principally the Working Capital Fund, could be used to fund shortfalls. Presently Florida's reserve is projected to be $443.7 million by the end of FY 1980-81, including $404.3 million in the Working Capital Fund.* These reserves could fully fund the shortfall for the first biennium but would be insufficient to fully fund the projected shortfall during the second biennium.

This pattern of cyclically diverging program costs and revenue receipts is not unfamiliar. Indeed, it is a replay of Florida's revenue history for the past several decades. This boom and bust cycle, furthermore, has been self-reinforcing. During periods of excess revenue growth, new program commitments have been developed which require even larger tax adjustments of program cutbacks during the subsequent lean periods. Accordingly, these findings reinforce those of the Governor's Commission on Inflation and Stability which recommended that Florida adopt an economic stabilization program.

Such a program has been recommended to the Legislature to constitutionally require that Florida develop an expenditure limitation and countercyclical program. This change would have the effect of placing restrictions on new spending commitments during periods of excess revenue and accumulate reserve funds to be used during periods of insufficient revenues. Also, the program would allow the state to provide economic assistance to the private sector to help mitigate the effects of a recession.

In summary, the outlook for Florida tax revenues and expenditures during the eighties is reminiscent of the seventies' experience but much less traumatic. Not because

*Reserves based on the Governor's Supplemental Appropriation Recommendation for the 1979-81 biennium.

Florida's tax structure has become more elastic and resilient but because the economic conditions are not projected to be as volatile. The basic and fundamental problems which have caused the revenue rollercoaster effect during the past decade remain intact. This suggests that prudent program planning for cyclical turns is important and developing a longer term perspective in program evaluation is essential.

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TABLE 24
PROJECTIONS OF RECURRING GENERAL REVENUE RECEIPTS,
AND FEDERAL REVENUE SHARING RECEIPTS
(Percent Changes)

	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
Sales Tax	--	11.0	9.8	11.3	12.7	12.5	12.0	11.7	11.8	12.2
Corporate Income Tax	--	2.9	10.6	11.5	13.7	13.7	12.8	12.4	12.2	12.6
Beverage Tax	--	2.9	3.1	3.7	4.9	4.7	5.0	4.8	5.1	5.1
Documentary Stamp Tax	--	6.7	10.3	11.5	16.8	15.6	13.8	12.5	12.2	12.8
Severance Tax	--	33.0	.9	(4.2)	(22.1)	(23.9)	(1.5)	(1.5)	1.5	3.0
Interest	--	(7.7)	(3.1)	1.1	(3.2)	0.0	3.3	4.3	7.1	5.7
Cigarette Tax	--	3.8	2.5	2.4	3.5	4.5	3.3	4.2	4.0	4.9
Motor Vehicle Licenses	--	4.6	2.9	2.9	5.6	2.6	3.8	3.7	4.8	5.7
Other Taxes, Licenses, and Fees	--	6.4	3.4	4.4	6.1	6.2	5.4	5.8	5.5	5.2
TOTAL TAX RECEIPTS	--	8.7	8.0	9.3	10.6	10.7	10.8	10.6	10.7	11.2
Federal Revenue Sharing	--	0.0	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3
Other Recurring Revenue	--	(83.3)	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0
Less Refunds	--	0.0	55.0	9.7	8.8	10.8	12.2	8.7	12.0	10.7
TOTAL NET RECURRING REVENUE	--	8.4	7.7	9.2	10.4	10.6	10.7	10.5	10.6	11.1

Source: Executive Office of the Governor, Revenue and Economic Analysis.

TABLE 25
PROJECTIONS OF RECURRING GENERAL REVENUE APPROPRIATIONS AND EXPENDITURES
(Millions of Dollars)

	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
Department of Education										
FEFP, Federal Revenue Sharing	70	70	71	72	73	74	75	76	77	78
FEFP, State Share	1344	1455	1675	1879	2024	2184	2353	2532	2717	2902
Other	752	781	964	1119	1215	1320	1428	1548	1680	1823
Department of Health and Rehabilitative Services	670	724	844	975	1079	1192	1317	1455	1607	1775
Other Agencies	774	854	941	1019	1110	1202	1305	1417	1540	1673
Fixed Capital Outlay	107	66	90	98	105	112	120	128	136	145
TOTAL, General Revenue Appropriations	3717	3950	4585	5162	5606	6084	6598	7156	7757	8396
Less Unused Appropriations	26	28	33	37	40	43	47	51	55	60
TOTAL Recurring Expenditures	3691	3922	4552	5125	5566	6041	6551	7105	7702	8336
Percent Change	--	6.3	16.1	12.6	8.6	8.5	8.4	8.5	8.4	8.2

TABLE A-1
Personal Income By Major Source, Florida: 1968 - 1979
(In Millions of Current Dollars)

Year[1]	Total Personal Income	Wages and Salaries								
		Total	All Private	Farm	Mining	Contract Construction	Manufacturing	Transportation, Communications, and Public Utilities	Wholesale and Retail Trade	Finance, Insurance and Real Estate
1968	19,791	12,135	9,302	194	59	909	2,050	1,001	2,434	695
1969	22,824	14,152	11,110	191	58	1,252	2,305	1,149	2,808	856
1970	25,317	15,843	12,377	211	66	1,469	2,364	1,311	3,176	983
1971	28,341	17,400	13,519	198	84	1,590	2,437	1,443	3,502	1,123
1972	32,964	20,059	15,654	219	90	2,008	2,754	1,662	4,003	1,337
1973	38,661	23,514	18,658	259	100	2,659	3,202	1,952	4,702	1,629
1974	43,256	26,025	20,554	288	121	2,787	3,432	2,125	5,287	1,829
1975	46,632	26,698	20,458	299	119	2,051	3,423	2,218	5,391	1,791
1976	50,903	28,589	21,947	338	116	1,840	3,747	2,429	5,914	1,923
1977	56,963	31,737	24,528	376	115	2,016	4,305	2,697	6,502	2,142
1978	65,084	36,463	28,638	443	139	2,455	5,116	3,081	7,410	2,529
Year/Quarter[2]										
1977 Q1	54,377	30,331	23,426	359	111	1,858	4,066	2,603	6,282	2,004
Q2	55,828	31,096	24,054	365	117	1,977	4,195	2,612	6,408	2,135
Q3	57,899	32,234	24,928	380	122	2,087	4,381	2,750	6,568	2,196
Q4	59,750	33,288	25,706	400	112	2,144	4,578	2,823	6,751	2,234
1978 Q1	61,642	34,560	26,981	412	130	2,239	4,762	2,927	7,012	2,412
Q2	63,524	35,534	27,654	430	140	2,400	4,966	2,943	7,258	2,462
Q3	66,477	37,204	29,249	451	144	2,533	5,242	3,145	7,546	2,575
Q4	68,692	38,555	30,469	478	144	2,647	5,496	3,308	7,823	2,667
1979 Q1	70,879	39,711	31,491	508	142	2,772	5,724	3,444	8,019	2,774
Q2	73,423	40,968	32,435	526	153	2,928	5,939	3,552	8,156	2,850

TABLE A-1 (Continued)
Personal Income by Major Source, Florida: 1968 - 1979
(In Millions of Current Dollars)

Year[1]	WAGES AND SALARIES			Other Labor Income	Proprietors' Income	Farm Proprietors' Income	Nonfarm Proprietors' Income	Property Income	Transfer Payments	Personal Contributions for Social Security
	Services	Other	Total Government							
1968	1,912	48	2,833	539	1,891	449	1,442	3,543	2,221	538
1969	2,392	98	3,043	722	2,073	399	1,674	4,015	2,598	728
1970	2,697	99	3,467	870	1,962	329	1,633	4,401	3,126	875
1971	3,039	101	3,881	1,005	2,217	409	1,808	4,941	3,735	945
1972	3,463	117	4,405	1,245	2,674	469	2,205	5,714	4,363	1,093
1973	4,015	138	4,856	1,547	3,044	595	2,449	6,684	5,313	1,421
1974	4,539	146	5,470	1,780	2,672	554	2,118	7,946	6,396	1,541
1975	4,955	209	6,240	2,035	2,634	629	2,005	8,543	8,268	1,515
1976	5,410	228	6,641	2,346	2,812	558	2,253	9,649	9,202	1,666
1977	6,121	253	7,209	2,792	3,232	505	2,727	10,858	10,219	1,845
1978	7,141	324	7,825	3,324	3,862	865	2,997	12,405	11,222	2,157
Year/Quarter[2]										
1977 Q1	5,915	229	6,905	2,610	3,073	495	2,578	10,430	9,749	1,786
Q2	5,999	246	7,042	2,704	3,156	464	2,692	10,737	9,990	1,816
Q3	6,186	258	7,306	2,866	3,226	428	2,798	11,014	10,459	1,869
Q4	6,384	280	7,582	2,990	3,472	632	2,840	11,253	10,690	1,910
1978 Q1	6,802	285	7,579	3,145	3,595	737	2,858	11,649	10,804	2,076
Q2	6,932	324	7,680	3,212	3,900	945	2,955	12,089	10,939	2,106
Q3	7,274	338	7,955	3,403	3,974	940	3,034	12,665	11,459	2,189
Q4	7,556	351	8,086	3,538	3,979	839	3,140	13,218	11,690	2,257
1979 Q1	7,737	369	8,220	3,673	4,296	1,134	3,161	13,743	11,972	2,475
Q2	7,937	391	8,533	3,874	4,623	1,434	3,189	14,210	12,324	2,531

[1] Annual income figures are computed from quarterly totals at annual rates.
[2] Quarterly income figures are seasonally adjusted at annual rates.

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

TABLE A-2
Personal Income By Major Source, U.S.: 1968 - 1979
(In Millions of Current Dollars)

Year[1]	Total Personal Income	Wages and Salaries								
		Total	All Private	Farm	Mining	Contract Construction	Manufacturing	Transportation, Communications, and Public Utilities	Wholesale and Retail Trade	Finance, Insurance and Real Estate
1968	685,250	469,525	373,135	2,884	4,874	26,985	145,850	33,970	75,262	22,319
1969	745,833	507,403	409,697	3,763	5,361	31,277	157,492	37,385	83,323	25,334
1970	801,267	539,212	430,475	4,005	5,799	33,161	158,175	40,364	89,749	27,403
1971	859,100	572,781	453,864	4,038	6,014	35,950	160,341	43,242	96,097	30,196
1972	942,550	627,326	496,523	4,218	6,637	38,872	175,350	47,583	104,342	33,204
1973	1,052,432	695,024	552,719	4,873	7,290	43,339	196,186	52,921	115,209	36,507
1974	1,154,925	758,415	604,120	5,669	8,827	46,002	211,388	57,104	127,242	39,899
1975	1,255,490	799,877	630,681	5,981	10,817	44,994	211,055	59,455	135,860	42,410
1976	1,381,610	884,082	702,326	6,674	12,172	48,463	237,423	66,072	150,228	46,499
1977	1,531,592	976,917	782,258	6,988	13,991	53,495	265,956	73,560	165,527	51,900
1978	1,717,400	1,096,462	886,291	7,231	16,350	62,303	298,487	83,144	186,414	59,235
Year/Quarter[2]										
1977 Q1	1,472,500	939,128	749,872	6,916	13,360	50,272	254,780	70,500	159,488	49,744
Q2	1,509,030	964,812	772,812	6,932	14,176	53,496	263,232	72,436	163,580	51,128
Q3	1,548,470	987,800	792,132	7,094	14,440	54,516	269,380	74,480	167,292	52,564
Q4	1,596,370	1,015,928	814,216	7,100	13,988	55,696	276,432	76,824	171,748	54,164
1978 Q1	1,634,730	1,044,764	839,724	7,052	12,124	56,176	285,724	79,784	177,912	56,196
Q2	1,669,330	1,083,132	875,272	7,100	17,040	61,924	294,268	82,304	183,732	58,276
Q3	1,742,470	1,110,296	899,176	7,240	17,824	64,540	300,996	83,420	189,248	60,164
Q4	1,803,070	1,147,656	930,992	7,532	18,412	66,572	312,960	87,068	194,764	62,304
1979 Q1	1,852,600	1,182,741	962,718	7,980	18,528	68,150	325,074	90,542	200,766	64,019
Q2	1,892,470	1,205,639	981,547	8,267	19,362	71,879	328,808	91,110	204,672	65,465

TABLE A-2 (Continued)
Personal Income By Major Source, U.S.: 1968 - 1979
(In Millions of Current Dollars)

Year[1]	Wages and Salaries: Services	Wages and Salaries: Other	Wages and Salaries: Total Government	Other Labor Income	Proprietors' Income	Farm Proprietors' Income	Nonfarm Proprietors' Income	Property Income	Transfer Payments	Personal Contributions for Social Security
1968	56.159	886	91.467	25.091	63.375	12.008	51.400	90.125	59.917	22.825
1969	64.487	1.275	97.706	28.192	66.225	13.950	52.266	96.642	66.508	26.317
1970	70.442	1.379	108.737	32.017	65.150	13.925	51.200	105.800	79.883	28.033
1971	76.489	1.497	118.917	36.183	67.725	14.292	53.433	112.417	94.117	30.767
1972	84.654	1.663	130.803	41.950	76.125	18.008	58.133	120.783	104.108	34.150
1973	94.444	1.950	142.305	48.700	92.425	32.025	60.417	133.433	118.891	42.242
1974	105.843	2.146	154.295	55.600	86.275	25.375	60.858	155,375	140.817	47.708
1975	117.684	2.425	169.196	65.133	86.975	23.475	63.500	169.850	178,167	50.508
1976	131.975	2.820	181.756	77.433	89.375	18.325	71.025	186.625	193.841	55.600
1977	147.769	3.072	194.659	91.750	100.175	19.642	80.517	208.591	208.366	61.275
1978	169.413	3.714	210.171	106.475	116.800	27.700	89.075	236.333	224.083	69.800
Year/Quarter[2]										
1977 Q1	141.944	2.868	189.256	86.167	96.900	19.167	77.700	200.133	203.133	59.567
Q2	144.804	3.028	192.000	89.700	97.600	17.867	79.767	206.366	204.233	60.767
Q3	149.364	3.092	195.668	93.733	98.600	16.833	81.733	211.734	211.267	61.767
Q4	154.964	3.300	201.712	97.400	107.600	24.700	82.867	216.133	214.833	63.000
1978 Q1	161.444	3.312	205.040	101.100	109.100	25.700	83.367	222.566	217.400	67.300
Q2	166.908	3.720	207.860	104.700	115.000	27.667	87.300	229.800	218.833	68.933
Q3	171.896	3.848	211.120	108.200	117.400	26.100	91.267	241.834	228.333	70.200
Q4	177.404	3.976	216.664	111.900	125.700	31.333	94.367	251.133	231.767	72.767
1979 Q1	183.483	4.176	220.023	115.967	129.000	34.167	94.833	259.800	237.300	78.733
Q2	187.568	4.418	224.092	120.333	129.300	33.733	95.508	266.667	243.633	79.800

[1] Annual income figures are computed from quarterly totals at annual rates.
[2] Quarterly income figures are seasonally adjusted at annual rates.

Source: U.S. Department of Commerce, Bureau of Economic Analysis

TABLE A-3
Personal Income: Total, Per Capita, and Real Per Capita
Florida *vs.* United States and Southeast: 1968 - 1978

	Total Personal Income (In Millions of Current Dollars)			Per Capita Personal Income (In Current Dollars)			Real Per Capita Personal Income[1] (In Current Dollars)		
	U.S.	Florida	S.E.	U.S.	Florida	S.E.	U.S.	Florida	S.E.
1968	685,250	19,791	117,438	3415	3060	2728	3277	2937	2618
1969	745,833	22,824	129,513	3680	3421	2981	3351	3115	2715
1970	801,267	25,317	141,055	3912	3700	3208	3363	3181	2758
1971	859,100	28,341	154,489	4150	3996	3458	3423	3295	2853
1972	942,550	32,964	174,173	4514	4449	3829	3602	3550	3056
1973	1,052,432	38,661	198,045	5002	4958	4279	3758	3725	3215
1974	1,154,925	43,256	220,801	5451	5284	4692	3690	3578	3177
1975	1,255,490	46,632	239,863	5880	5546	5031	3646	3439	3119
1976	1,381,610	50,903	267,115	6422	5960	5541	3767	3496	3250
1977	1,531,592	56,963	296,936	7065	6545	6089	3890	3604	3353
1978	1,717,400	65,084	334,155	7860	7282	6773	4020	3724	3464

[1]Deflated by the Consumer Price Index

Source: U.S. Department of Commerce, Bureau of Economic Analysis

TABLE A-4
Location Quotients by Broad Industrial Classification
Florida: 1968 - 1978

Industry	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Farm	2.61	1.82	1.79	1.61	1.62	1.57	1.48	1.50	1.57	1.66	1.84
Nonfarm	.99	.99	.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	.99
Private	.94	.96	.97	1.02	1.13	.99	.99	.97	.96	.96	.96
Manufacturing	.54	.52	.51	.50	.49	.48	.47	.49	.49	.50	.52
Mining	.47	.39	.39	.46	.42	.40	.40	.33	.30	.25	.26
Contract Construction	1.30	1.44	1.51	1.46	1.62	1.81	1.77	1.37	1.17	1.16	1.18
Wholesale and Retail Trade	1.25	1.21	1.20	1.20	1.20	1.21	1.21	1.19	1.22	1.21	1.20
Finance, Insurance and Real Estate	1.21	1.21	1.22	1.22	1.26	1.32	1.34	1.27	1.28	1.27	1.28
Transportation, Communications and Public Utilities	1.14	1.10	1.11	1.10	1.09	1.09	1.08	1.12	1.14	1.13	1.11
Services	1.32	1.33	1.30	1.31	1.28	1.26	1.25	1.26	1.27	1.28	1.27
Other Services	2.07	2.76	2.45	2.23	2.20	2.10	1.99	2.59	2.51	2.54	2.63
Government	1.20	1.12	1.09	1.07	1.05	1.01	1.03	1.10	1.13	1.14	1.12

NOTE: A Location Quotient = $\dfrac{\dfrac{\text{Florida Wage and Salary Income in an Industry}}{\text{Florida Total Wage and Salary Income}}}{\dfrac{\text{U.S. Wage and Salary Income in the Same Industry}}{\text{U.S. Total Wage and Salary Income}}}$

Source: Computed from data provided by the U.S. Department of Commerce, Bureau of Economic Analysis.

TABLE A-5
Gross State Product by Broad Industrial Source, Estimated, Florida: 1962 - 1978
(In Millions of Current Dollars)

	1962	1963	1964	1965	1966	1967	1968	1969
TOTAL GROSS STATE PRODUCT	12,975.3	13,927.2	15,324.4	16,793.7	18,541.3	20,322.7	23,021.3	26,188.0
Total Private Nonfarm	10,620.9	11,436.8	12,551.0	13,871.5	15,312.4	16,724.9	18,928.0	21,695.6
Mining	94.2	105.7	118.4	125.6	136.7	121.1	126.8	124.3
Contract Construction	721.3	804.3	930.7	1,101.4	1,117.8	1,142.4	1,318.6	1,736.6
Manufacturing	1,870.1	2,017.2	2,212.0	2,447.8	2,789.3	3,042.0	3,451.0	3,773.4
Transportation, Communications, and Public Utilities	1,189.8	1,300.2	1,440.3	1,572.4	1,741.0	1,926.9	2,181.0	2,502.7
Wholesale and Retail Trade	2,506.6	2,644.7	2,940.5	3,234.8	3,523.2	3,868.7	4,449.4	5,045.8
Finance, Insurance and Real Estate	2,474.5	2,635.4	2,799.7	3,071.6	3,364.0	3,629.7	4,045.6	4,646.0
Services	1,680.6	1,845.7	2,014.9	2,217.2	2,530.6	2,874.3	3,224.8	3,716.9
Other[1]	83.7	83.5	94.5	100.7	109.9	120.2	130.8	149.9
Farm	643.1	618.7	696.0	671.0	683.9	731.6	820.0	919.4
Government[2]	1,711.3	1,871.7	2,077.5	2,251.1	2,545.0	2,866.1	3,273.3	3,573.0
Federal	841.1	920.9	1,022.3	1,073.0	1,218.5	1,370.0	1,524.0	1,610.9
State	870.2	950.8	1,055.1	1,178.1	1,326.6	1,496.2	1,749.2	1,962.9

TABLE A-5 (Continued)
Gross State Product by Broad Industrial Source, Estimated, Florida: 1962 - 1978
(In Millions of Current Dollars)

	1970	1971	1972	1973	1974	1975	1976	1977	1978
TOTAL GROSS STATE PRODUCT	28,893.6	32,264.0	37,492.4	44,084.8	47,795.6	49,488.1	54,431.4	51,130.4	69,924.9
Total Private Nonfarm	23,947.5	26,742.9	31,139.0	36,898.6	39,689.9	41,013.3	44,854.5	50,764.1	58,593.5
Mining	147.0	194.3	200.7	228.0	283.7	279.3	277.1	274.6	329.8
Contract Construction	2,019.2	2,196.7	2,789.0	3,692.4	3,856.4	3,023.6	2,802.2	3,137.6	3,722.8
Manufacturing	3,799.9	4,018.9	4,601.3	5,335.3	5,578.5	5,962.1	6,652.8	7,695.0	9,077.1
Transportation, Communications, and Public Utilities	2,819.4	3,177.0	3,694.8	4,320.7	4,683.9	5,170.6	5,723.5	6,390.8	7,315.7
Wholesale and Retail Trade	5,655.0	6,363.7	7,352.4	8,695.0	9,529.8	10,258.4	11,297.8	12,345.7	13,934.0
Finance, Insurance and Real Estate	5,179.2	5,952.8	6,974.7	8,097.7	8,781.9	8,457.8	9,590.2	11,130.7	12,782.3
Services	4,168.8	4,662.6	5,315.0	6,280.4	6,906.0	7,543.9	8,157.8	9,386.9	10,912.0
Other[1]	159.0	176.9	211.2	249.0	269.8	317.6	353.1	402.8	519.8
Farm	854.9	992.5	1,178.5	1,455.0	1,418.4	1,657.7	1,666.0	1,674.9	1,793.3
Government[2]	4,091.2	4,528.7	5,174.9	5,731.2	6,487.3	6,817.1	7,910.9	8,691.4	9,538.1
Federal	1,790.5	1,906.1	2,101.5	2,168.4	2,372.9	NA	NA	NA	NA
State	2,300.8	2,622.5	3,073.3	3,562.8	4,114.4	NA	NA	NA	NA

[1]Includes Agricultural Services, Forestry, and Fisheries.

[2]Total Government Wages and Salaries including earnings of military personnel and estimated supplements.

Source: Executive Office of the Governor.

TABLE A-6
Consumer Price Index
Selected Components: 1967 - 1978

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
All Items	100.0	104.2	109.8	116.3	121.3	125.3	133.1	147.7	161.2	170.5	181.5	195.5
Durables	100.0	103.1	107.0	111.8	116.5	118.9	121.9	130.6	145.5	154.3	163.2	173.9
New Cars	100.0	102.8	104.4	107.6	112.0	111.0	111.1	117.5	127.6	135.7	142.9	153.8
Nondurables	100.0	103.9	108.9	114.0	117.7	121.7	132.8	151.0	163.2	169.2	178.9	192.0
Apparel Commodities	100.0	105.6	111.9	116.5	120.1	122.7	127.1	136.1	141.2	145.7	151.7	155.7
Food	100.0	103.6	108.9	114.9	118.4	123.5	141.4	161.7	175.4	180.9	192.3	211.8
Fuel Oil and Coal	100.0	103.1	105.6	110.1	117.5	118.5	136.0	214.6	235.3	250.7	283.4	298.3
Natural Gas	100.0	101.0	102.8	108.5	116.2	122.3	127.9	143.9	172.5	201.1	239.4	263.1
Electricity	100.0	100.9	102.8	106.2	113.2	118.9	124.9	147.5	167.0	177.5	189.2	203.4
Gasoline	100.0	101.4	104.7	105.6	106.3	107.6	118.1	159.9	170.8	177.8	188.1	196.3
Services	100.0	105.2	112.5	121.6	128.4	133.3	139.1	152.1	166.6	180.5	194.4	211.2
Transportation Services	100.0	104.0	111.3	123.1	133.0	136.0	136.9	141.9	152.7	174.3	188.3	197.4
Medical Services	100.0	107.3	116.0	124.2	133.3	138.2	144.3	159.1	179.1	197.0	216.6	235.3

Source: U.S. Department of Labor, Bureau of Labor Statistics

TABLE A-8
Population, Florida vs. U.S.: 1950 - 1978

Florida Regions

Region	1950*	1950	1950*	1960	1964	1965	1966	1967	1968	1969
1	158,793	160,600	264,551	266,400	295,500	302,200	308,200	309,200	314,200	328,200
2	246,031	247,200	299,095	299,800	311,600	314,000	319,900	319,100	322,900	331,600
3	157,052	157,100	172,864	174,100	194,500	199,600	202,100	203,000	205,200	213,000
4	389,456	395,000	566,310	569,600	620,700	629,400	638,300	645,700	655,200	660,600
5	72,958	73,000	94,322	95,300	114,200	119,000	123,300	123,900	126,400	130,900
6	287,461	292,600	631,653	639,900	773,300	803,100	841,500	869,400	889,800	918,900
7	160,402	162,100	246,954	248,300	271,300	277,300	284,700	286,300	291,400	294,500
8	464,376	471,000	878,406	886,300	1,009,700	1,037,500	1,063,400	1,088,300	1,131,100	1,172,400
9	71,255	72,200	170,850	174,400	227,300	240,200	250,600	261,100	275,100	294,700
10	154,547	157,000	309,641	314,000	381,200	397,800	411,700	419,100	432,100	454,000
11	608,974	622,600	1,316,914	1,335,100	1,586,700	1,641,500	1,693,700	1,763,600	1,848,500	1,900,600
State	2,771,305	2,810,400	4,951,560	5,003,200	5,786,000	5,961,600	6,137,400	6,288,700	6,491,900	6,699,400
% Change	---	---	---	---	3.44	3.03	2.95	2.47	3.23	3.20

U.S.
(In Thousands)

Total	151,326	151,868	179,323	179,979	191,141	193,526	195,576	197,457	199,399	201,385
% Change	---	---	---	---	1.41	1.25	1.06	0.96	0.98	1.00

TABLE A-8 (Continued)
Population, Florida vs. U.S.: 1950 - 1978

Florida Regions

Region	1970*	1970	1971	1972	1973	1974	1975	1976	1977	1978
1	331,262	332,773	339,339	345,166	357,987	370,365	373,802	379,299	386,350	391,523
2	333,458	335,495	344,136	354,459	371,617	390,980	399,042	398,836	404,797	406,346
3	215,142	216,221	221,356	229,635	237,129	247,855	257,580	258,882	264,469	270,787
4	662,705	664,355	675,282	689,151	716,343	741,243	757,806	762,935	762,528	771,156
5	132,825	135,091	144,102	154,099	171,990	187,478	193,486	199,942	209,484	216,291
6	922,068	931,351	969,055	1,024,165	1,085,879	1,134,565	1,148,792	1,146,081	1,171,175	1,206,896
7	297,204	299,818	312,604	328,659	344,277	361,020	372,411	370,222	374,202	384,490
8	1,185,477	1,199,550	1,256,014	1,325,679	1,400,817	1,479,485	1,525,888	1,535,664	1,561,448	1,609,453
9	306,756	311,687	331,286	353,973	389,329	424,671	445,618	458,043	477,648	513,751
10	463,856	470,202	492,386	516,335	570,265	616,336	640,810	653,852	679,296	718,409
11	1,940,478	1,957,305	2,034,466	2,120,224	2,199,459	2,294,853	2,369,995	2,388,058	2,425,937	2,479,653
State	6,791,231	6,853,848	7,120,026	7,441,545	7,845,092	8,248,851	8,485,230	8,551,814	8,717,334	8,968,755
% Change	---	2.31	3.88	4.52	5.42	5.15	2.87	0.78	1.94	2.88

U.S.
(In Thousands)

Total	203,235	203,810	206,219	208,234	209,860	211,389	213,051	214,680	216,383	218,059
% Change	---	1.20	1.18	0.98	0.78	0.73	0.79	0.76	0.79	0.77

*April 1 Census Figure.

Note: With the exception of the census figures, the population figures are July 1 estimates of the resident population.

Source: U.S. Population figures are developed by the U.S. Department of Commerce, Bureau of the Census.
Florida population estimates are developed by the University of Florida, Bureau of Economic and Business Research.
1972 through 1978 estimates were developed for the Department of Administration pursuant to Section 23.019, Florida Statutes.

TABLE A-10
Nonfarm Employment By Major Industry, U.S.: 1968 - 1979
(In Thousands of Employees)

Year	Industries	Mining	Construction	Manufacturing	Transportation, Communications and Public Utilities	Wholesale and Retail Trade	Finance, Insurance and Real Estate	Services	Government		
									Total	Federal	State and Local
1968	67,884	606	3,349	19,780	4,317	14,096	3,336	10,567	11,833	2,738	9,095
1969	70,375	619	3,574	20,167	4,441	14,702	3,511	11,170	12,190	2,759	9,431
1970	70,883	623	3,590	19,371	4,514	15,039	3,646	11,550	12,549	2,732	9,818
1971	71,205	609	3,699	18,623	4,477	15,350	3,772	11,796	12,879	2,696	10,183
1972	73,667	628	3,887	19,152	4,541	15,946	3,907	12,274	13,332	2,684	10,649
1973	76,778	641	4,093	20,153	4,655	16,604	4,045	12,856	13,729	2,663	11,066
1974	78,276	697	4,026	20,080	4,725	16,988	4,148	13,443	14,169	2,724	11,446
1975	76,936	751	3,528	18,322	4,542	17,053	4,165	13,892	14,683	2,748	11,936
1976	79,380	779	3,576	18,997	4,582	17,754	4,271	14,552	14,869	2,733	12,136
1977	82,242	809	3,826	19,646	4,695	18,487	4,452	15,247	15,078	2,729	12,349
1978	85,754	836	4,203	20,330	4,858	19,399	4,675	15,976	15,474	2,752	12,722
Year/Quarter[1]											
1977 Q1	80,848	808	3,669	19,370	4,650	18,126	4,382	14,959	14,907	2,737	12,170
Q2	81,955	828	3,822	19,638	4,687	18,396	4,429	15,136	15,004	2,728	12,276
Q3	82,677	812	3,880	19,711	4,708	18,603	4,469	15,328	15,152	2,727	12,425
Q4	83,489	787	3,935	19,867	4,735	18,825	4,530	15,565	15,250	2,725	12,525
1978 Q1	84,262	687	3,967	20,145	4,786	19,077	4,586	15,680	15,366	2,742	12,624
Q2	85,677	872	4,181	20,298	4,858	19,333	4,643	15,908	15,559	2,757	12,802
Q3	86,115	885	4,286	20,288	4,842	19,512	4,705	16,063	15,512	2,762	12,750
Q4	86,963	899	4,378	20,588	4,945	19,676	4,766	16,255	15,461	2,749	12,712
1979 Q1	87,868	915	4,471	20,894	5,000	19,881	4,825	16,441	15,478	2,760	12,718
Q2	88,517	925	4,541	20,907	5,017	19,974	4,870	16,634	15,617	2,773	12,844

[1]Quarterly data are seasonally adjusted

Source: U.S. Department of Labor

TABLE A11
Unemployment Rate, Florida vs. U.S.: 1968-1979
(Annual Average Rate)

Year	TOTAL CIVILIAN EMPLOYMENT (In Thousands)		UNEMPLOYMENT RATE	
	Florida	U.S.	Florida Percent	U.S. Percent
1968	2,388.1	75,921	3.6	3.6
1969	2,538.9	77,902	3.3	3.5
1970	2,544.9	78,627	4.3	5.0
1971	2,626.4	79,120	4.9	6.0
1972	2,711.1	81,702	5.1	5.6
1973	2,959.0	84,409	4.3	4.9
1974	3,107.0	85,936	6.3	5.6
1975	3,058.8	84,783	10.7	8.5
1976	3,134.8	87,485	9.0	7.7
1977	3,229.5	90,546	8.2	7.0
1978	3,443.5	94,373	6.6	6.0
Year/Quarter				
1977 Q1	3,145.6	89,028	9.1	7.4
Q2	3,152.4	90,264	8.8	7.2
Q3	3,245.4	90,823	7.6	6.9
Q4	3,374.5	92,069	7.4	6.6
1978 Q1	3,401.0	91,401	6.4	6.2
Q2	3,439.8	94,294	6.6	6.0
Q3	3,452.8	95,786	7.0	6.0
Q4	3,480.5	96,010	6.5	5.8
1979 Q1	3,584.7	94,900	6.2	5.7
Q2	3,623.3	96,604	5.7	5.7

Note: The Florida quarterly data are seasonally adjusted by the Executive Office of the Governor. A more detailed discussion of the methodology used for determining unemployment rates is found in the 1977 Economic Report of the Governor, page 87.

Source: U.S. Department of Commerce, *Survey of Current Business*, Florida Department of Commerce, and the Executive Office of the Governor.

TABLE A-7
Gross State Product, Florida *vs.* Gross National Product
Total and Per Capita: 1970 - 1978

Year	GROSS STATE PRODUCT		GROSS NATIONAL PRODUCT	
	Total (In Billions of Current Dollars)	Per Capita (In Current Dollars)	Total (In Billions of Current Dollars)	Per Capita (In Current Dollars)
1970	28.9	4,217	982.4	4,820
1971	32.3	4,531	1,063.4	5,157
1972	37.5	5,038	1,171.1	5,624
1973	44.1	5,619	1,306.6	6,226
1974	47.8	5,794	1,413.2	6,685
1975	49.5	5,834	1,528.8	7,177
1976	54.4	6,361	1,702.2	7,912
1977	61.1	7,009	1,899.5	8,759
1978	69.9	7,794	2,127.6	9,735

Source: U.S. Department of Commerce, Bureau of Economic Analysis and Executive Office of the Governor.

TABLE A-9
Nonfarm Employment by Major Industry, Florida: 1968 - 1979
(In Thousands of Employees)

Year	Industries	Mining	Construction	Manufacturing	Transportation, Communications and Public Utilities	Wholesale and Retail Trade	Finance, Insurance and Real Estate	Services	Government		
									Total	Federal	Local	State
1968	1,932.7	8.3	143.5	311.4	135.2	491.6	112.6	368.0	362.0	75.8	222.2	64.0
1969	2,070.0	7.7	169.1	329.1	145.4	521.2	123.0	396.0	377.9	77.2	231.4	69.3
1970	2,151.8	8.3	175.7	322.4	154.4	545.7	131.3	416.2	397.8	76.8	243.9	77.0
1971	2,249.0	8.9	186.7	322.6	161.7	583.4	143.7	449.9	419.2	76.9	258.7	83.6
1972	2,512.9	8.9	229.9	351.2	173.6	643.3	162.4	505.6	437.8	77.4	273.0	87.4
1973	2,778.5	9.3	289.9	380.4	186.8	703.2	182.6	556.2	470.1	78.2	295.7	96.2
1974	2,863.8	9.9	276.3	375.9	189.8	727.8	192.6	581.5	510.5	83.0	324.1	103.3
1975	2,746.2	9.3	182.7	339.4	182.9	713.8	188.4	584.3	545.9	83.5	353.7	108.6
1976	2,784.7	8.8	166.8	354.0	181.4	731.1	191.3	608.6	542.7	83.0	349.1	110.6
1977	2,933.5	9.1	178.9	380.9	185.0	771.2	202.5	640.1	565.6	82.7	369.0	113.8
1978	3,141.5	9.4	206.6	420.5	192.8	812.1	218.8	677.4	604.3	85.0	402.0	116.8
Year/Quarter[1]												
1977 Q1	2,851.8	8.9	169.4	367.4	182.7	753.1	196.6	623.7	548.1	82.2	353.8	111.7
Q2	2,902.3	9.0	175.9	376.1	184.4	765.3	200.8	635.1	555.3	82.2	360.1	112.9
Q3	2,961.4	9.3	181.3	384.9	185.7	774.7	204.4	648.3	574.2	82.6	377.0	115.5
Q4	3,018.3	9.4	189.1	394.8	187.4	791.7	208.2	653.3	584.8	83.9	385.2	115.3
1978 Q1	3,081.4	9.4	196.7	406.7	190.2	803.9	213.2	664.8	596.1	84.3	395.9	115.3
Q2	3,121.7	9.4	205.0	414.8	191.3	808.0	215.6	672.3	606.6	85.2	402.4	116.9
Q3	3,159.7	9.4	210.7	425.0	191.8	814.6	210.8	680.2	608.6	85.5	408.1	116.3
Q4	3,203.2	9.5	213.8	435.5	197.9	821.8	226.7	692.4	606.1	85.1	401.8	118.7
1979 Q1	3,221.3	9.6	221.0	442.2	199.9	826.4	231.1	696.5	595.1	85.7	390.2	118.7
Q2	3,244.9	9.7	222.2	442.9	203.7	826.6	234.6	702.3	609.3	85.6	405.6	119.0

[1]Quarterly data are seasonally adjusted.

Source: Computed from data provided by the Florida Department of Commerce.

TABLE A-12
Taxable Sales By Category, Florida: 1968-1979
(In Millions of Current Dollars—Seasonally Adjusted, at Annual Rates)

	Consumption				Investment		
	Nondurable		Durable				
Year	Consumer	Recreation	Autos and Accessories	Other	Building	Business	Farm
1968	4,475.6	2,681.5	2,530.5	999.0	1,318.5	1,708.1	100.8
1969	5,521.2	3,083.9	2,899.1	1,176.6	1,653.7	2,229.8	119.3
1970	6,553.3	3,367.3	3,093.2	1,285.5	1,748.5	2,608.6	119.6
1971	7,029.3	3,770.4	3,652.5	1,328.5	1,964.7	3,090.3	132.0
1972	7,298.9	4,251.7	4,540.6	1,633.0	2,650.4	4,145.2	165.4
1973	8,218.4	4,892.5	5,708.8	2,034.7	3,565.6	5,213.5	196.1
1974	9,311.2	5,326.2	5,187.0	2,094.4	3,628.2	5,997.8	201.7
1975	9,868.7	5,818.8	4,868.2	1,933.4	2,664.0	6,006.5	183.2
1976	10,842.7	6,457.0	5,879.8	2,220.8	2,717.7	6,047.4	193.1
1977	11,657.1	7,246.0	6,860.4	2,366.7	3,318.4	6,760.7	213.4
1978	13,606.5	8,588.0	8,507.3	2,920.3	4,342.8	8,023.7	259.9
Year/Quarter							
1977 Q1	10,733.7	6,810.9	6,457.7	2,200.5	2,991.8	6,278.0	194.1
Q2	11,793.8	7,040.7	6,692.0	2,303.9	3,123.4	6,673.7	210.0
Q3	11,695.0	7,327.2	6,882.5	2,402.5	3,427.6	6,801.0	218.8
Q4	12,405.7	7,805.0	7,409.4	2,559.7	3,731.0	7,290.0	230.5
1978 Q1	13,044.3	7,933.4	7,777.6	2,696.0	4,067.5	7,247.8	244.6
Q2	13,196.1	8,610.1	8,304.2	2,829.3	4,372.2	7,763.9	253.6
Q3	14,313.4	8,688.2	8,781.8	2,959.7	4,298.0	8,322.3	270.6
Q4	13,872.2	9,120.2	9,165.7	3,196.0	4,633.3	8,760.8	270.8
1979 Q1	14,693.1	9,361.5	9,530.8	3,368.4	4,940.2	9,525.8	288.4
Q2	15,042.1	9,732.9	9,281.7	3,370.1	5,125.4	9,351.4	283.4

Source: Computed from data provided by the Florida Department of Revenue.

TABLE A-13
Tourist Arrivals By Mode of Travel, Florida: 1968-1979
(In Thousands)

Year	Airplane	Automobile	Other	Total
1968	3,740	12,596	696	17,032
1969	4,152	13,393	567	18,113
1970	4,225	14,377	433	19,036
1971	4,992	15,671	446	21,108
1972	5,942	16,644	444	23,031
1973	6,465	18,135	451	25,051
1974	6,750	17,260	500	24,510
1975	7,362	19,346	552	27,260
1976	8,027	20,900	552	29,479
1977	8,513	20,583	568	29,664
1978	10,276	22,121	615	33,012
Year/Quarter				
1977 Q1	2,928	5,366	200	8,494
Q2	1,853	5,073	110	7,036
Q3	1,671	5,419	141	7,231
Q4	2,061	4,724	117	6,902
1978 Q1	3,449	5,929	214	9,592
Q2	2,279	5,416	117	7,812
Q3	2,151	5,641	155	7,947
Q4	2,397	5,135	129	7,661
1979 Q1	4,094	5,502	235	9,831
Q2	2,749	5,145	129	8,023

Source: Florida Department of Commerce, Division of Tourism.

TABLE A-14
Motor Vehicle Tag Sales, Florida: 1958 through Fiscal Year 1978-79

Year	Passenger Cars	Trucks	Buses
1958	1,766,671	271,422	3,325
1959	1,926,177	290,726	6,857
1960	2,045,582	297,957	7,143
1961	2,121,078	300,921	7,093
1962	2,251,570	311,449	7,358
1963	2,376,424	323,218	7,810
1964	2,521,765	341,613	8,189
1965	2,701,694	362,925	8,532
1966	2,838,948	382,659	8,332
1967	3,044,421	408,973	9,094
1968	3,226,693	441,689	9,454
1969-70	3,451,513	491,824	9,743
1970-71	3,583,147	527,536	10,221
1971-72	3,892,619	592,860	10,753
1972-73	4,226,812	687,736	10,117
1973-74	4,440,236	732,992	10,957
1974-75	4,723,378	794,441	11,618
1975-76	4,736,482	835,279	11,638
1976-77	7,025,458	1,213,642	17,908
1977-78	5,332,117	941,436	11,868
1978-79	5,606,696	1,023,626	10,912

Note: 13 month tags were issued during the years 1964 through 1969-70.
1976-77 figures include some duplicated vehicle registrations due to the transistion to the birthmonth renewal system.

Source: Florida Department of Highway Safety and Motor Vehicles, *Tags and Revenues.*

TABLE A-17
Federal Aid to State and Local Governments
Total and Per Capita, All States: Fiscal Year 1977-78

State	Population July 1, 1977 (In Thousands)	Total Federal Aid 1977-78 (In Thousands)	Federal Aid Per Capita	Rank
Alabama	3,691	$1,240,569	$336.11	31
Alaska	413	408,211	988.40	1
Arizona	2,305	763,318	331.16	34
Arkansas	2,152	779,074	362.02	21
California	21,887	8,012,965	366.11	20
Colorado	2,625	825,855	314.61	37
Connecticut	3,107	1,052,697	338.81	30
Delaware	582	225,033	386.65	17
District of Columbia	685	1,105,199	1,613.43	*
Florida	8,466	2,364,186	279.26	44
Georgia	5,041	2,036,993	404.09	14
Hawaii	891	413,391	463.96	7
Idaho	856	336,315	392.89	16
Illinois	11,228	3,467,151	308.80	40
Indiana	5,350	1,259,679	235.45	50
Iowa	2,888	796,893	275.93	45
Kansas	2,320	615,820	265.44	47
Kentucky	3,468	1,133,308	326.79	35
Louisiana	3,930	1,358,360	345.64	26
Maine	1,084	470,379	433.93	10
Maryland	4,137	1,318,423	318.69	36
Massachusetts	5,777	2,581,488	446.86	9
Michigan	3,980	1,280,231	358.57	22
Minnesota	3,980	1,350,915	339.43	29
Mississippi	2,386	915,855	383.85	18
Missouri	4,822	1,278,467	265.13	48
Montana	766	397,300	518.67	3
Nebraska	1,555	458,783	295.04	42
Nevada	637	268,909	422.15	11
New Hampshire	850	289,298	340.35	28
New Jersey	7,338	2,552,215	347.81	24
New Mexico	1,196	608,411	508.70	4
New York	17,932	8,372,465	466.90	6
North Carolina	5,515	1,655,955	300.26	41
North Dakota	650	259,138	398.67	15
Ohio	10,696	2,904,685	271.57	46
Oklahoma	2,817	937,180	332.69	32
Oregon	2,385	1,075,400	450.90	8
Pennsylvania	11,796	3,912,086	331.65	33
Rhode Island	937	388,000	414.09	13
South Carolina	2,878	903,414	313.90	38
South Dakota	688	288,446	419.25	12
Tennessee	4,292	1,330,860	310.08	39
Texas	12,806	3,295,287	257.32	49
Utah	1,270	434,261	341.94	27
Vermont	482	240,659	499.29	5
Virginia	5,095	1,468,126	288.15	43
Washington	3,681	1,311,062	356.17	23
West Virginia	1,853	707,622	381.88	19
Wisconsin	4,644	1,607,427	346.13	25
Wyoming	406	235,707	580.56	2
U.S.	**216,383**	**75,293,471**	**347.96**	*

Source: U.S. Department of the Treasury, *Federal Aid to States, Fiscal Year 1978.*

U.S. Department of Commerce, Bureau of the Census, Current Population Reports, *Population Estimates and Projections*, Series P-25, Number 790.

Table A-15
Private Housing Starts and Construction Value
1968-1979

Year	Housing Starts		Construction Value (In Thousands of Current Dollars)*				
			Private Residential				
	Single-Family	Multi-Family	Single-Family	Multi-Family	Other Private	Public	Total
1968	43,729	69,047	746,235	826,664	487,044	598,337	2,658,279
1969	43,233	90,395	824,502	1,292,203	724,795	610,837	3,452,337
1970	44,805	67,261	812,697	982,536	1,061,107	718,675	3,575,015
1971	62,712	86,430	1,213,141	1,152,028	1,131,552	755,272	4,251,993
1972	78,145	170,592	1,688,390	2,607,672	1,554,803	716,819	6,567,684
1973	64,172	203,980	1,605,664	3,601,415	1,770,555	987,963	7,965,597
1974	42,348	89,553	1,146,070	1,862,558	1,279,223	1,339,430	5,627,281
1975	34,826	17,556	1,042,503	356,268	1,136,396	1,124,086	3,659,253
1976	47,785	18,949	1,551,731	384,750	927,045	1,279,226	4,142,752
1977	74,966	33,701	2,610,525	820,334	2,020,779	1,402,345	6,853,983
1978	95,225	65,479	3,542,528	1,780,959	2,240,427	1,482,669	9,046,583
Year/Quarter							
1977 Q1	15,770	6,772	530,706	163,482	254,340	324,178	1,272,706
Q2	20,029	7,373	684,540	164,421	1,114,236	334,706	2,297,953
Q3	19,932	9,278	710,325	230,500	354,415	276,267	1,571,507
Q4	19,235	10,278	684,954	261,931	297,738	467,194	1,711,817
1978 Q1	21,374	13,751	760,889	327,681	684,207	340,775	2,113,552
Q2	26,623	19,114	992,551	582,885	539,386	396,803	2,511,625
Q3	23,814	16,987	879,346	432,481	576,830	372,826	2,261,483
Q4	23,414	15,627	909,742	437,912	440,004	372,265	2,159,923
1979 Q1	26,720	31,123	1,073,981	858,445	531,623	449,680	2,913,729
Q2	24,785	22,565	988,480	699,359	1,333,016	504,380	3,525,235

*Not Seasonally Adjusted.

Note: Private residential construction includes all housekeeping residential buildings owned by the private sector. This includes both multi-family (two or more dwelling units) and single-family construction.

Other private construction includes all non-housekeeping construction owned by the private sector and is made up of manufacturing and non-manufacturing. Non-manufacturing construction is further broken down into building and non-building. Public construction includes all projects that are owned by a governmental entity. It is divided into the eight categories of residential, schools, transportation, water and sewerage, other building (local and State/Federal) and other non-building (local and State/Federal).

Source: Computed from data provided by F.W. Dodge Company.

TABLE A-16
Federal Aid to State and Local Governments By Administering Agency: Fiscal Year 1977-78 (In Thousands of Current Dollars)

	U.S.	Florida	Percent
Agriculture	$ 4,445,892	$ 153,486	3.45
Civil Servicer Commission	18,512	723	3.91
Commerce	3,476,978	174,683	5.02
Community Services Administration	731,612	13,882	1.90
Defense	103,181	3,588	3.48
Energy	37,413	1,587	4.24
Environmental Protection Agency	3,391,048	147,370	4.35
Equal Employment Opportunity Commission	7,591	197	2.60
Funds Appropriated to the President	462,303	387	.08
Health, Education and Welfare	29,656,080	660,731	2.23
Housing and Urban Development	5,587,004	159,033	2.85
Interior	679,040	10,908	1.61
Justice	558,876	19,899	3.56
Labor	10,607,424	437,918	4.13
Natinal Foundation on Arts and Humanities	21,013	438	2.08
Tennessee Valley Authority	79,782	-0-	-0-
Transportation	8,584,059	319,690	3.72
Treasury	8,251,118	256,324	3.11
Veterans Administration	73,898	506	.68
Water Resources Council	2,235	-0-	-0-
Miscellanecus	1,107,978	3,284	.30
TOTAL	**$77,883,037**[1]	**$2,364,634**	**3.04**

[1]Includes (1) aid to all states, the District of Columbia, Puerto Rico, the Virgin Islands, American Samoa, Guam, and the Trust Territory of the Pacific; (2) adjustments or undistributed aid to States.

Source: U.S. Department of the Treasury, *Federal Aid to States, Fiscal year 1978.*

TABLE A-18
Interstate Comparisons of Full Time Government Employment By Level of Government: 1978

State	July 1, 1978[1] Population (In thousands)	October, 1978[2] Total State and Local Government Employment	October, 1978[2] State Government Employment	October, 1978[2] Local Government Employment	Total State and Local Government Employment as a Percent of Population	State Government Employment as a Percent of Population	Local Government Employment as a Percent of Population
Alabama	3,742	187,394	62,039	125,355	5.01	1.66	3.35
Alaska	403	29,196	15,678	13,518	7.24	3.89	3.35
Arizona	2,354	131,198	36,310	94,888	5.57	1.54	4.03
Arkansas	2,186	98,175	33,000	65,175	4.49	1.51	2.98
California	22,294	1,090,616	242,823	847,793	4.89	1.09	3.80
Colorado	2,670	150,639	44,813	105,826	5.64	1.68	3.96
Connecticut	3,099	134,339	45,341	88,998	4.33	1.46	2.87
Delaware	583	31,556	14,572	16,984	5.41	2.50	2.91
District of Columbia	674	49,435	---	49,435	7.33	---	7.33
Florida	8,594	438,682	101,846	336,836	5.10	1.18	3.92
Georgia	5,084	278,527	76,540	201,987	5.48	1.51	3.97
Hawaii	897	46,659	34,317	12,342	5.20	3.83	1.38
Idaho	878	45,221	15,087	30,134	5.15	1.72	3.43
Illinois	11,243	502,709	113,131	389,578	4.47	1.01	3.46
Indiana	5,374	241,280	62,059	179,221	4.49	1.15	3.33
Iowa	2,896	145,933	43,248	102,685	5.04	1.49	3.55
Kansas	2,348	125,578	38,001	87,577	5.35	1.62	3.73
Kentucky	3,498	152,994	59,542	93,452	4.37	1.70	2.67
Louisiana	3,966	207,720	68,134	139,586	5.24	1.72	3.52
Maine	1,091	49,358	17,318	32,040	4.52	1.59	2.94
Maryland	4,143	227,306	76,100	151,206	5.49	1.84	3.65
Massachusetts	5,774	275,801	72,291	203,510	4.78	1.25	3.52
Michigan	9,189	447,894	119,417	328,477	4.87	1.30	3.57
Minnesota	4,008	197,022	53,356	143,666	4.92	1.33	3.58
Mississippi	2,404	122,113	36,814	85,299	5.08	1.53	3.55
Missouri	4,860	221,448	63,695	157,753	4.56	1.31	3.25

TABLE A-18 (Continued)
Interstate Comparisons of Full Time Government Employment
By Level of Government: 1978

State	July 1, 1978[1] Population (in thousands)	October, 1978[2] Total State and Local Government Employment	October, 1978[2] State Government Employment	October, 1978[2] Local Government Employment	Total State and Local Government Employment as a Percent of Population	State Government Employment as a Percent of Population	Local Government Employment as a Percent of Population
Montana	785	45,695	14,932	30,763	5.82	1.90	3.92
Nebraska	1,565	92,420	28,116	64,304	5.91	1.80	4.11
Nevada	660	39,707	12,119	27,588	6.02	1.84	4.18
New Hampshire	871	38,744	13,347	25,397	4.45	1.53	2.92
New Jersey	7,327	358,964	79,128	279,836	4.90	1.08	3.82
New Mexico	1,212	67,851	27,962	39,889	5.60	2.31	3.30
New York	17,748	919,720	190,712	729,008	5.18	1.07	4.11
North Carolina	5,577	276,086	83,992	192,094	4.95	1.51	3.44
North Dakota	652	32,158	11,642	20,516	4.93	1.79	3.15
Ohio	10,749	469,098	111,740	357,358	4.36	1.04	3.32
Oklahoma	2,880	145,476	50,787	94,689	5.05	1.76	3.29
Oregon	2,444	131,834	42,002	89,832	5.39	1.72	3.68
Pennsylvania	11,750	474,479	131,216	343,263	4.04	1.12	2.92
Rhode Island	935	44,025	18,815	25,210	4.71	2.01	2.70
South Carolina	2,918	162,491	58,875	103,616	5.57	2.02	3.55
South Dakota	690	35,551	12,565	22,986	5.15	1.82	3.33
Tennessee	4,357	214,144	63,487	150,657	4.91	1.46	3.46
Texas	13,014	650,180	165,587	484,593	5.00	1.27	3.72
Utah	1,307	64,630	27,117	37,513	4.94	2.07	2.87
Vermont	487	23,634	10,653	12,981	4.85	2.19	2.66
Virginia	5,148	278,233	94,709	183,524	5.40	1.84	3.56
Washington	3,774	193,149	68,012	125,137	5.12	1.80	3.32
West Virginia	1,860	92,606	38,779	53,827	4.98	2.08	2.89
Wisconsin	4,679	218,661	55,540	163,121	4.67	1.19	3.49
Wyoming	424	25,921	8,655	17,266	6.11	2.04	4.07
U.S.	218,059	10,724,240	2,965,951	7,758,289	4.92	1.36	3.56
Median					5.04	1.66	3.46

Source: [1]U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Population Estimates and Projections, Series P-25, Number 794.

[2]U.S. Department of Commerce, Bureau of the Census, **Public Employment in 1978,** GE78-Number 1.

TABLE A-19
Interstate Comparisons of State Expenditures By Selected Programs: 1977

	PER $1,000 OF PERSONAL INCOME[1]					PER CAPITA EXPENDITURES (Dollars)				
	General Expenditures	Inter-governmental Expenditures	Expenditures for Education	Expenditures for Public Welfare	Expenditures for Highways	General Expenditures	Inter-governmental Expenditures	Expenditures for Education	Expenditures for Public Welfare	Expenditures for Highways
State Average	$ 769.77	$289.69	$269.96	$152.01	$ 81.14	$121.09	$37.26	$47.49	$18.79	$16.40
Median State	758.81	237.22	307.09	111.04	101.37	116.38	35.36	44.98	16.94	14.22
Alabama	702.98	198.35	333.67	99.47	101.14	124.26	35.06	58.98	17.58	17.88
Alaska	702.98	198.35	333.67	99.47	101.14	124.26	35.06	58.98	17.58	17.88
Arizona	739.07	319.04	371.00	48.84	104.86	113.36	48.94	56.90	7.49	16.08
Arkansas	646.71	204.77	263.77	110.32	115.83	117.12	37.08	47.77	19.98	20.98
California	868.37	414.31	318.57	248.91	49.19	109.80	52.39	40.28	31.47	6.22
Colorado	748.10	263.73	370.97	111.77	94.53	104.40	36.80	51.77	15.60	13.19
Connecticut	688.36	171.31	209.12	135.00	55.17	85.45	21.27	25.96	16.76	6.85
Delaware	1,066.34	251.15	460.90	127.08	98.75	138.16	32.54	59.72	16.46	12.79
Florida	580.40	238.94	260.95	52.31	69.16	86.66	35.68	38.97	7.81	10.33
Georgia	617.27	197.05	269.55	102.41	69.94	102.84	32.83	44.91	17.06	11.65
Hawaii	1,511.36	43.72	533.59	215.64	104.77	199.01	5.76	70.26	28.40	13.80
Idaho	798.38	256.89	313.74	87.84	157.49	133.04	42.81	52.28	14.64	26.24
Illinois	758.35	251.12	276.05	187.89	100.71	95.38	31.59	34.72	23.63	12.67
Indiana	597.85	250.48	263.94	73.30	83.05	86.37	36.19	38.13	10.59	12.00
Iowa	796.54	313.09	348.68	114.69	141.31	115.65	45.46	50.62	16.65	20.52
Kansas	684.00	192.57	290.74	125.54	101.60	95.77	26.96	40.71	17.58	14.23
Kentucky	745.44	171.05	294.93	133.72	120.49	124.45	28.56	49.24	22.32	20.11
Louisiana	836.08	250.99	305.93	111.85	135.37	141.45	42.46	51.76	18.92	22.90
Maine	740.75	207.70	269.58	158.05	102.81	128.80	36.11	46.87	27.48	17.88
Maryland	858.65	348.19	304.84	137.78	97.07	113.45	46.00	40.28	18.20	12.82
Massachusetts	822.64	235.50	233.46	251.98	60.54	113.28	32.43	32.15	34.70	8.34
Michigan	837.91	312.01	316.08	217.94	81.04	110.16	41.02	41.56	28.65	10.65
Minnesota	961.34	452.22	439.72	156.48	96.28	135.06	63.53	61.78	21.98	13.53
Mississippi	727.65	252.37	312.99	95.99	119.38	144.73	50.20	62.25	19.09	23.74
Missouri	513.82	151.22	213.80	91.41	82.82	77.14	22.70	32.10	13.72	12.43

TABLE A-19 (Continued)
Interstate Comparisons of State Expenditures
By Selected Programs: 1977

	PER $1,000 OF PERSONAL INCOME[1]					PER CAPITA EXPENDITURES (Dollars)				
	General Expenditures	Inter-governmental Expenditures	Expenditures for Education	Expenditures for Public Welfare	Expenditures for Highways	General Expenditures	Inter-governmental Expenditures	Expenditures for Education	Expenditures for Public Welfare	Expenditures for Highways
Montana	$ 877.66	$222.74	$326.29	$ 91.68	$212.08	$144.04	$36.55	$53.55	$15.06	$34.81
Nebraska	639.69	204.03	212.12	84.96	125.10	95.78	30.55	31.76	12.72	18.73
Nevada	805.32	247.02	324.09	74.61	137.19	100.84	30.93	40.58	9.34	17.18
New Hampshire	647.77	111.97	179.64	95.45	129.90	98.52	17.03	27.32	14.52	19.76
New Jersey	743.94	276.78	253.04	155.91	41.10	93.10	34.64	31.67	19.51	5.14
New Mexico	892.44	334.78	441.18	89.79	105.49	152.65	57.27	75.46	15.36	18.04
New York	1,027.01	570.90	308.25	247.20	38.46	136.60	75.93	41.00	32.88	5.12
North Carolina	718.22	329.39	345.40	81.03	82.05	121.40	55.68	58.38	13.70	13.87
North Dakota	960.92	248.12	357.44	98.91	170.12	163.53	42.23	60.83	16.83	28.95
Ohio	599.00	230.47	238.12	102.19	73.69	84.48	32.51	33.58	14.41	10.39
Oklahoma	699.36	201.16	305.03	128.28	94.50	111.57	32.09	48.66	20.46	15.08
Oregon	800.23	212.35	289.10	144.19	99.74	114.08	30.27	41.22	20.56	14.22
Pennsylvania	759.26	234.80	261.79	194.96	80.32	108.45	33.54	37.39	27.85	11.47
Rhode Island	859.50	173.42	269.41	230.88	40.21	126.92	25.61	39.78	34.09	5.94
South Carolina	745.45	203.13	309.75	82.36	63.20	132.21	36.03	54.94	14.61	11.21
South Dakota	732.81	109.35	224.96	98.25	137.80	123.09	18.37	37.78	16.50	23.15
Tennessee	593.72	167.28	245.63	96.29	103.49	102.34	28.84	42.34	16.60	17.84
Texas	572.81	172.71	297.78	91.48	54.63	83.90	25.30	43.62	13.40	8.00
Utah	831.84	239.65	432.08	92.28	102.22	139.98	40.33	72.71	15.53	17.20
Vermont	954.32	178.91	309.04	174.24	124.22	163.80	30.71	53.04	29.91	21.32
Virginia	685.18	206.83	269.81	96.52	126.90	100.17	30.24	39.44	14.11	18.55
Washington	914.70	294.81	427.14	144.85	102.70	120.98	38.99	56.49	19.16	13.58
West Virginia	838.81	231.37	317.23	100.61	183.79	139.81	38.57	52.88	16.77	30.63
Wisconsin	878.88	429.79	309.17	187.79	69.56	128.04	62.61	45.04	27.36	10.13
Wyoming	991.31	292.64	336.29	63.32	255.66	131.74	38.89	44.69	8.41	33.98

[1]Computed using 1976-77 expenditure figures and calendar year 1977 personal income figures.

Source: U.S. Department of Commerce, Bureau of the Census, *State Government Finances in 1977*.
U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business, April 1979*.

TABLE A-20
Interstate Comparisons of Total State and Local Tax Burdens: Fiscal Years 1974-75 to 1976-77

	PER CAPITA						PERCENT OF PERSONAL INCOME					
	1974-75	Rank	1975-76	Rank	1976-77	Rank	1974-75	Rank	1975-76	Rank	1976-77	Rank
National Average	$664	NA	$731	NA	$813	NA	12.28%	NA	12.47%	NA	12.80%	NA
Median State	612	NA	671	NA	749	NA	11.66	NA	11.83	NA	12.01	NA
Alabama	415	49	455	49	507	49	9.94	47	9.94	49	10.00	49
Alaska*	842	4	1,896	1	2,296	1	12.45	15	21.79	1	23.48	1
Arizona	648	18	731	17	827	16	13.26	10	13.94	11	14.41	8
Arkansas	405	50	454	50	494	50	9.90	49	9.79	50	10.18	48
California	869	2	964	3	1,089	3	14.59	3	14.89	4	15.49	3
Colorado	631	23	728	18	824	17	11.61	28	12.40	18	12.97	13
Connecticut	697	14	778	12	885	11	10.82	37	11.23	34	12.00	26
Delaware	727	10	768	14	829	15	11.66	25	11.44	31	11.80	31
Florida	521	39	566	41	628	37	9.94	47	10.13	47	10.47	46
Georgia	508	41	549	42	609	41	10.79	38	10.88	36	11.15	37
Hawaii	852	3	935	4	974	6	14.44	4	14.61	6	14.07	10
Idaho	528	36	590	34	639	33	11.02	33	11.58	28	11.70	33
Illinois	730	8	769	13	860	14	11.73	23	11.42	32	11.73	32
Indiana	580	27	588	35	652	30	11.15	32	10.39	43	10.54	45
Iowa	637	20	701	23	749	25	12.14	18	11.53	30	12.02	24
Kansas	598	26	651	28	728	26	10.86	36	11.02	35	11.32	35
Kentucky	497	43	549	42	601	43	11.32	31	11.37	33	11.28	36
Louisiana	566	30	610	29	636	35	12.99	12	12.60	16	12.01	25
Maine	571	29	671	25	658	29	12.59	13	14.17	9	12.44	21
Maryland	728	9	814	9	892	9	12.26	17	12.72	14	12.95	14
Massachusetts	814	5	902	5	1,002	4	14.20	5	14.74	5	15.14	6
Michigan	682	16	749	15	878	12	11.66	25	12.06	22	13.04	12
Minnesota	754	7	823	7	906	8	13.94	6	14.31	8	14.69	7
Mississippi	446	47	486	48	527	48	11.84	22	12.04	23	11.82	30
Missouri	523	38	570	40	609	41	10.35	45	10.38	44	10.26	47

TABLE A-20 (Continued)
Interstate Comparisons of Total State and Local Tax Burden
Fiscal Years 1974-75 to 1976-77

	PER CAPITA						PERCENT OF PERSONAL INCOME					
	1974-75	Rank	1975-76	Rank	1976-77	Rank	1974-75	Rank	1975-76	Rank	1976-77	Rank
Montana	$612	25	$709	22	$766	24	12.57%	14	13.17%	12	13.60%	11
Nebraska	577	28	658	27	774	22	10.96	34	10.88	36	12.78	17
Nevada	770	6	820	8	892	9	13.23	11	12.72	14	12.93	15
New Hampshire	525	37	571	39	618	40	10.75	39	10.81	38	10.62	43
New Jersey	725	11	793	10	931	7	11.59	30	11.83	26	12.61	19
New Mexico	548	32	598	31	625	38	13.54	8	12.76	13	11.96	27
New York	1,025	1	1,140	2	1,252	2	16.65	1	17.33	2	17.68	2
North Carolina	485	44	527	45	592	45	10.58	41	10.68	40	10.98	38
North Dakota	613	24	667	26	682	27	10.95	35	11.74	27	11.84	29
Ohio	534	34	586	36	641	32	9.69	50	10.02	48	10.00	49
Oklahoma	482	45	530	44	598	44	10.53	43	10.29	45	10.65	42
Oregon	635	22	703	21	793	20	12.13	19	12.41	17	12.92	16
Pennsylvania	636	21	684	24	770	23	11.68	24	11.54	29	11.88	28
Rhode Island	645	19	711	20	793	20	11.94	21	12.17	20	12.64	18
South Carolina	446	47	489	47	549	47	10.46	44	10.71	39	10.77	40
South Dakota	543	33	596	32	629	36	11.60	29	12.16	21	12.35	22
Tennessee	451	46	493	46	564	46	10.049	46	10.14	46	10.73	41
Texas	515	40	581	38	637	34	10.56	42	10.53	42	10.56	44
Utah	506	42	593	33	652	30	11.63	27	12.26	19	12.59	20
Vermont	699	13	742	16	810	19	15.46	2	15.12	3	15.18	5
Virginia	563	31	609	30	675	28	10.67	40	10.67	41	10.87	39
Washington	676	17	728	18	821	18	12.06	20	11.87	25	12.28	23
West Virginia	533	35	584	37	622	39	12.27	16	11.99	24	11.64	34
Wisconsin	719	12	791	11	870	13	13.83	7	13.96	10	14.36	9
Wyoming	697	14	847	6	988	5	13.43	9	14.39	7	15.48	4
District of Columbia	759	NA	924	NA	1,071	NA	10.67	NA	11.70	NA	13.05	NA

*Significant increase in Alaska revenues during 1975 is attributed to oil and gas reserve revenues.

Source: U.S. Department of Commerce, Bureau of the Census, *Governmental Finances in 1976-77*.

TABLE A-21
Intergovernmental Revenue From Federal Government to State of Florida Per Capita: 1966 - 1977 (In Current Dollars)

Year	Total[1]		Education		Highways		Public Welfare		Health and Hospitals		General Revenue Sharing		Employment Security Administration	
	Florida	50 State Average	Florida	50 State Average	Florida	50 State Average	Florida	50 State Average	Florida	50 State Average	Florida	50 State Average	Florida	50 State Average
1966	45.99	60.20	10.88	13.61	14.62	20.36	14.46	18.32	2.29	1.38	---	---	1.75	2.59
1967	53.30	69.09	16.49	17.76	13.31	20.47	16.74	22.09	2.85	1.59	---	---	1.91	2.81
1968	53.20	76.50	16.51	19.55	13.12	21.09	16.61	26.33	3.13	1.92	---	---	1.93	3.11
1969	54.40	84.06	17.04	20.49	11.36	20.89	18.68	32.20	3.25	2.12	---	---	2.02	3.39
1970	56.78	95.11	20.46	22.50	9.97	21.89	18.98	38.62	2.88	2.51	---	---	2.12	3.80
1971	70.04	110.72	22.23	26.61	13.24	23.43	25.96	46.48	3.20	2.59	---	---	2.10	4.67
1972	85.70	129.12	24.42	28.84	18.13	23.48	31.99	59.23	3.19	2.89	---	---	2.52	5.23
1973	96.75	149.94	25.60	30.75	13.71	22.23	36.70	65.29	NA	NA	8.05	10.83	3.28	6.10
1974	94.04	150.15	25.03	31.90	19.46	21.38	27.86	63.23	NA	NA	7.23	9.71	4.13	6.15
1975	118.61	170.18	29.54	37.10	19.49	24.77	30.54	67.08	NA	NA	7.50	9.72	4.20	7.16
1976	122.28	196.36	33.83	40.48	18.37	29.27	32.20	78.83	NA	NA	7.85	9.83	5.37	7.75
1977	133.32	212.03	35.93	41.90	21.10	29.51	35.35	86.82	NA	NA	7.94	10.51	6.75	8.50

[1]Including amounts for categories not shown separately.

NA - Not available

Source: U.S. Department of Commerce, Bureau of the Census, *State Government Finances*, selected years.